SPECIFICATIONS

PART 2—PRODUCTS

(For Part 1 and Part 3, see General Specifications.)

2.01 Manufacturer

A. Shall furnish all electrical control components, shades, and accessories for complete installation and single source responsibility.

Castec, Inc.
7531 Coldwater Canyon Avenue
North Hollywood, CA 91605
(800) 828-2500

2.02 Manufactured Units

A. Skystar 701B Skylight Shades:
The Castec Skystar 701B is a motorized folding skylight shade. It is constructed with battens sewn into pockets across the shade width. Carriers attached to the battens guide the fabric along tracks on either side of the shade. When the shade is opened, the fabric forms folds or pleats like a Roman shade. The return cords are visible in the window opening when the shade is open.

2.03 Components

A. Shade Fabric: Shall be selected from a large choice of vinyl-coated fiberglass and vinyl-coated polyester yarns woven into various configurations and colors. Shading fabrics shall be either .020" diameter 1000-denier polyester core PVC jacketed yarn or .016" diameter 500-denier PVC-coated fiberglass yarn. Woven yarn will be interlocking and heat treated so that all materials are securely bonded. The woven fabrics are made by coating a high strength polyester or fiberglass yarn with a proprietary vinyl compound that employs performance additives. This vinyl compound is specially formulated to resist fading, fire, mildew, soiling, and bacteria.

1. **Vinyl-Coated Polyester Fabrics** are available in the weaves listed below.
   - **a. SheerWeave 4000, OF 5%**
   - **b. SheerWeave 4100, OF 10%**
   - **c. SheerWeave 4400, OF 3%**
   - **d. SheerWeave 4800, OF 1%**

   All vinyl-coated polyester fabrics are available in various colors, and in widths up to 98".

2. **Vinyl-Coated Fiberglass Fabrics** are available in the weaves listed below.
   - **a. SheerWeave 2000, OF 5%**
   - **b. SheerWeave 2100, OF 10%**
   - **c. SheerWeave 2390, OF 5%**
   - **d. SheerWeave 2360, OF 10%**
   - **e. SheerWeave 1000, OF 25%**
   - **f. M Screen, OF 3% and 5%**
   - **g. E Screen 4100, OF 5%**
   - **h. E Screen 4110, OF 10%**
   - **i. T Screen 5103, OF 3%**
   - **j. T Screen 5100, OF 5%**
   - **k. T Screen 5110, OF 10%**
   - **l. Verso Veil, OF 1%**
   - **m. Basketweave 100, OF 13%**
   - **n. Hexcel XL2 Satin Weave, OF 3%, 5%, or 10%**
   - **o. Hexcel XL Screen, OF 5%.**

   All vinyl-coated fiberglass fabrics are available in various colors. Maximum widths range from 72" to 98".

3. **Combination Fabric: SheerWeave 3000, OF 14%** Made of vinyl-coated fiberglass in the warp for dimensional stability and vinyl-jacketed polyester in the fill for shading characteristics and color variety. It has a vertical ribbed pattern, and is available in numerous colors and designs. Maximum width 96".

4. **Blackout/Darkroom Fabric:** Shall be totally opaque. Fabric shall be made of first quality materials with no pin holes, breaks, or cracks and shall be washable and colorfast. The following Blackout/Darkroom fabrics are available:
   - **a. Flocke, OF 0%:** 48% fiberglass with 52% acrylic flocked backing. Available in widths up to 78".
   - **b. Hexcel 1260, OF 0%:** made from fiberglass coated with acrylic. Available in widths up to 71".
   - **c. Darkroom 100, OF 0%**: in 12 or 14 oz. 1 ply fiberglass, 3 plies plasticized PVC. Available in widths up to 72".

B. Operating System Components:

1. **Motors:** Shall be asynchronous capacitors, single phase type, operating on AC 120V-60HZ. They shall have planetary type gears, solenoid-activated disc brakes, and built-in limit switch units. Each motor shall be thermally protected, tubular in shape, and totally enclosed within the roller tube. Motors shall be

UL-recognized and CSA-certified for safe operation. Most motors operate at either 38 RPM or 64 RPM. R2 series, 80-RPM motors can be specified for larger shades.

2. **Motor Roller Tube:** Shall be of extruded aluminum .063" or larger.
   a. **Anti-Deflection Mechanism (ADM):** All shades exceeding width dimension tolerances shall have an ADM attached to ensure that the minimal deflection is met. (Width dimension tolerances are determined mathematically based on fabric weight and shade dimensions.) Castec can provide motorized shades up to 28 feet in width and 50 feet in height.
3. **Motor Idler End Cap:** Shall consist of an injection molded polymer plug with a steel shaft that will allow easy but positive locking of roller tube into idler end bracket.
4. **Motor Mounting Brackets:** for motor end, idler end, and center supports shall be galvanized steel.
5. **Motor headrail:** Shall be 3½" x ¾" clear pine covered in shade fabric.
6. **Cords:** Shall be .02 mm polyester heat-set cord, available in white, black, gray, or brown.
   a. **Lift Cords**: Shall be strung from the bottom rail through rings attached to the shade at each batten, and then through pulleys to the motor tube.
   b. **Return Cords:** Shall be routed, free of the shade's cord rings, from the motor through pulleys attached to the lower end of the window frame and then up to the bottom rail of the shade. The return cords are visible when the shade is open. The number of return cords is determined by the width of the shade. Two return cords are used for shades 72" wide or less. On shades more than 72" wide, one additional return cord is added for every 36".

C. **Hardware Components**

1. **Tracks**: Shall be of commercial quality 6063-T1 extruded aluminum not less than .055" wall thickness and shall meet AAMA standards. Tracks shall be 15⁄16" wide O.D. x 1 1⁄16" high O.D.
2. **Fabric Carriers:** Shall be made of self-lubricating Delrin® and shall be compatible with track. The eye and hook assembly shall be made of .093" Brite basic wire, Brite nickel plated.
3. **Battens:** Shall be of 3⁄16" diameter anodized aluminum rod and shall be encased in back-facing pockets sewn horizontally into fabric and spaced approximately 8¾" apart.
4. **Shade Headrail:** Shall be 1½" x ¾" clear pine covered in shade fabric.
5. **Oval Bottom Rail:** Shall be of 6063-T5 extruded aluminum alloy with continuous spline channel at top for fabric attachment.
6. **Oval Bottom Rail End Caps:** Shall be molded polymer and shall match the color of the bottom rail.
7. **Track End Caps:** Shall be made of steel and finished to match the tracks.
8. **Track Brackets for Inside Mount:** Shall be aluminum, 5⁄8" wide, and shall match the color of the track.
9. **Headrail Brackets**: Shall be extruded aluminum, 1¼" wide by 1 1⁄32" deep by 1½" high, finished to match the tracks.
10. **Guide Wires:** Shall be steel cable. Shades less than 72" wide are constructed without guide wires. Shades 72" or wider are constructed with one guide wire per 36" of shade width.
11. **Guide Wire Carriers**: Shall be cast aluminum with aluminum pulleys, and shall be attached to the shade battens with hook assemblies made of Brite basic wire, Brite nickel plated.

2.04 Motor Control Options

A. **Individual or Group switching:** Multiple and remote switching available.

B. **Group Control Systems:** For operating any number of motors from one or more switches or from a remote control. Can be configured to control entire elevations.

C. **Available Switches:** Rocker, toggle, key, or decorator.

D. **Other Accessories:** Infrared and radio remote controllers, 7-day timers, and sun sensors.

E. **Integrated System Operator:** Capable of integrating with complete building automation systems.

2.05 Finishes

Aluminum extrusions are of 6063-T5 alloy available in dark bronze anodized, clear anodized, or white enameled finish. Custom colors are also available.