



## **Fiberoptics Technology Inc. Starscape Star Ceiling Series**

Specification for:

### **Star Ceiling Custom Harness System**

#### **PART 1 GENERAL**

##### **1.1 SYSTEM DESCRIPTION:**

A. Aesthetic Requirements: Custom Harness Fiber Optic System shall be aesthetically pleasing in appearance with no visible defects in parts and workmanship for harness, specified star light bundles, and selected light source (selection). Connections of star bundles to harness and harness to light source will be properly terminated and incorporate boots, thumbscrews, and/or end tips for easy interconnectivity without special tools. Custom dimensions and lengths, as well as add-on effects shall be accommodated per the detail.

B. Performance requirements:

1. UL fire rating on PMMA fiber optic.
2. Harness will be PMMA fiber optic with black PVC sheath and aluminum or brass end tips.
3. Add-on effects (shooting star or twinkle) will incorporate the same fiber optic material as the harness, and light sources will incorporate UL rated low voltage LED light sources at no more than 12V, and will include transformer and wall plug.
4. Power supplies used to power light sources or illuminators for the harness will be UL, CSA, or CE rated, and will include wall plug.
5. Component materials shall be alterable in the field to accommodate for changes to detail.

C. Definitions:

1. System will be a series of 3 items, light source, harness, and star bundles satisfy dimensions of the area to be covered in the detail. Detail may incorporate add-on effects (shooting star or twinkle), that will each incorporate a dedicated light source and dedicated fiber strands per the effect.

##### **1.2 QUALITY ASSURANCE**

A. Installer Qualifications: A qualified General Contractor or Electrician whose work has resulted in a record of successful in-service performance.

B. Manufacturer Qualifications: A manufacturer with primary experience in custom fiber optic systems manufacturing and ISO certified for an effective Quality Management System.

C. Source Limitations: Obtain quantity, dimensional design, star density, desired add-on effects (if necessary, shooting star and/or twinkle) and any other specified requests from manufacturer.

D. Product Options: Drawings indicate dimensional requirement, star density, light source location, any add-on effects (if necessary, shooting star and/or twinkle), and are based on the system indicated in the detail.

### 1.3 REFERENCES

#### A. Star Bundles and Custom Harness

1. UL Fire Rating on PMMA plastic fiber
2. Medical Grade silicone sheathing
3. Aluminum or brass end tips

#### B. Light Sources (Custom Harness, Twinkle and Shooting Star):

1. UL, CE, or CSA Rating for Custom Harness Light Sources, and will include wall plug
2. UL Low Voltage Rating not to exceed 12V for Shooting Star and Twinkle Light Sources, and will include wall plug
3. Enclosures will be hard plastic or aluminum shell

### 1.4 SUBMITTALS

A. Product Data: Include physical characteristics such as dimensions, star density requested, custom harness light source choice, and any add-on effects requested.

B. Shop Drawings: Show installation details, and any cut sheets available.

C. Maintenance Data: Include standard maintenance manual, or installation and handling manual for this product.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Inspect custom harness and other components on delivery for carrier damage. Store system in original undamaged packaging in an area sheltered from weather until ready for installation. Inspect system and other components prior to

installation. DO not store in any area exceeding 70C

## 1.6 WARRANTY

A. Custom Harness system, and all other related components carry a one year manufacturer's limited warranty against defects in materials and workmanship. The one year warranty period begins the date the product is shipped from the manufacturer. Harnesses used in conjunction with light sources and light engines supplied by others may not be covered by the warranty.

## PART 2 - PRODUCTS

### 2.1 ACCEPTABLE MANUFACTURERS

A. Fiberoptics Technology Inc. 1 Quassett Rd. Pomfret, CT, USA 06258. Ph: 860-928-0443, Fax: 860-928-7664. Contact: Zach Morin Email: [zmorin@fiberoptix.com](mailto:zmorin@fiberoptix.com)

### 2.2 MATERIALS

- A. Harness
  - 1. Harness will be constructed of PMMA fiber optic, medical grade silicone sheathing, and aluminum or brass end tips, and will be constructed to the given dimensions and desired star density.
- B. Harness Light Source
  - 1. Light source enclosure will be hard plastic or aluminum shell
  - 2. Light source will be UL, CSA or CE rated, and will include wall plug.
  - 3. Light source will be equipped with desired control if necessary (i.e. DMX, IR, RF etc.).
- C. Twinkle and Shooting Star Light Source
  - 1. Light sources will be UL Low Voltage Rating, not to exceed 12V, and will include wall plug.
  - 2. Light source enclosure will be hard plastic or aluminum shell
- D. Fiber Optic Bundles
  - 1. Fiber optic bundle will consist of PMMA plastic end emitting fiber optic strands.
  - 2. The number of strands designated will be determined by the specified star density outlined by the architect or client
  - 3. The fiber optic strands will be bonded together in a small brass eyelet and ground and polished at the factory for maximum light output and performance.

## E. Options

1. Custom Harness design per detailed dimensions
2. Star Density: number of star points per square foot as specified in the detail
3. Shooting Star Effect Add On: 40 additional fibers, and similar LED light source (UL rated low voltage 9V, and will include wall plug) for shooting star effect.
4. Twinkle Effect Add On: 80 additional fibers, and similar LED light source (UL rated low voltage no more than 12V, and will include wall plug) for twinkle effect.
5. Custom Harness light source can be controlled through various mediums of communication (DMX, USB, RF, IR).

### 2.3 Custom Harness Star Ceiling System:

A. The custom harness system shall be a part of the Starscape model line, Dimensions of ceiling will be \_\_\_\_\_. Distance from light source location to the center of the area to be covered is \_\_\_\_\_. Desired star density will be \_\_\_\_\_/sq ft. Desired add-on effects necessary are \_\_\_\_\_ (if necessary, shooting star and/or twinkle). The custom harness light source will need to have the following characteristics \_\_\_\_\_ (LED, Halogen, color changes, or any communication options)

1. Manufacturer part numbers will vary, and be created anew due to the custom nature of each project and build.

## PART 3 EXECUTION

### 3.1 INSTALLATION

#### A. Site requirements.

1. Installation of custom harness system shall be in existing drywall, drop ceiling or other medium, or new construction medium in detail to local building code requirements.
2. Add-on effects will be installed similar to custom harness system
3. Heed all other installation instructions and tips in installation manual required by submittals.

B. Handle and install custom harness system and any add-ons in accordance with manufacturer's recommendations and installation instructions.

C. Ensure that all material, when mounted, is secure in position and securely fixed, and that the ambient temperature condition not exceed 70C. Installation of the light source or light engine in a external enclosure without adequate ventilation will void the warranty.