LITESTYX

Multiple LED Color Temperature Variable High Intensity Task Light

PRODUCT INTRODUCTION

LiteStyx is a uniquely designed product that is intended to be used in a myriad of industrial and domestic applications such as metalworking, part inspection, laboratory studies, or simple general lighting. **LiteStyx** employs low voltage, high intensity light emitting diode (LED) technology to produce brilliant white light. By using LEDs, the product has much greater efficiency, higher safety, much smaller space requirements and greater flexibility than incandescent, fluorescent, CFL or just about any other class of lighting.

PRODUCT DESCRIPTION

The **LiteStyx** system consists of a solid aluminum base, two "LiteStyx" flex-arm emitters and a switch-mode wall mount power supply. The base contains a micro-controller (MCU) operated electronic circuit that provides a stable low voltage supply to each of the two emitters. A variable intensity control is also incorporated in the base module which will permit continuous adjustment of the emitter light output from from 10% to 100%.

The base module has a unique screw mounting capability that will permit installation onto virtually any surface, curved or flat, and in eight different orientations. The two LED emitters are attached to the base using heavy duty modular electrical connectors that easily facilitate connection/removal. The emitter "LiteStyx" use a flex-arm design that permits positioning each of the emitters into any position and at any angle to provide an unlimited field of view from two different and distinct directions.

LiteStyx emitters are available in two white light chromaticity groups to allow selection of a "hue" that best fits the intended application. The 4500^{O}K group is similar to the light output color from a quartz-halogen lamp while the 6000^{O}K group will more closely resemble light from a high brightness fluorescent lamp. Even though the two color temperature groups produce approximately the same light output, the higher group (6000^{O}K) will appear significantly brighter due to the higher "blue" content and the greater sensitivity of the human eye to blue hue light sources.

LiteStyx emitters are available in various lengths to facilitate the distance differences from the base module to the application. Standard lengths are 12", 18" and 24". However, longer or shorter lengths can be manufactured upon request. It should be noted that the two emitters do not have to be the same length. This provides even more flexibility in custom arrangement of different length emitters to more closely conform to the application.

OPERATIONAL DESCRIPTION

LiteStyx uses two LED emitters to effectively provide a field of view large enough to cover almost any application. Each of the two emitters operate independently in that they have separate electronic control circuitry that regulates the power. However, the ON/OFF and timing control modes are not independent. Therefore, both emitters are turned ON and OFF together.

The control switch for ON/OFF control and for choosing the ON time duration mode is located behind and in the center of the **LiteStyx** label. The unit has two selectable operational modes, "timed OFF" and "continuous". In the "timed OFF" mode, the emitters will turn on and automatically turn off in two hours unless turned off manually. In the "continuous" mode, the emitters will turn on and remain on indefinitely until manually turned off or a loss of input power is experienced. If a loss of input power occurs, the emitters will not turn on automatically when input power is restored.

A variable intensity control is conveniently located in the base module to adjust the emitter brightness to any desired level from approximately 10% to 100%. It should be noted that because **LiteStyx** employs LED technology for light production, the intensity control has absolutely no effect on the color temperature or "hue" of the emitted light. Halogen or other incandescent light sources, when dimmed, change color drastically. This property of LEDs has been one of the most beneficial aspects of LED use in general lighting.

HOSTILE ENVIRONMENT CONSTRUCTION

LiteStyx is deliberately designed to be highly resistant to most liquid and/or chemically hostile environments such as those found in machine shops or laboratories. The entire unit is constructed of materials that are chemically resistant and the assembly uses components and techniques that result in a device that is virtually water tight. Although not recommended, **LiteStyx** can operate when completely submerged in water. However, the main input line connection should **NEVER** be near liquid containing environments.

INSTALLATION INSTRUCTIONS

The system is supplied with one 5/16"-18 socket head cap screw and nut. Also, a 5/16"-18 threaded "insert" is provided for use in non-metal surfaces such as a wood work bench. Choose a location and orientation that best suits the application. Flat surfaces are best but since there is only one hole necessary for mounting, the base module can be used on a curved surface.

For sheet metal, the cap screw and nut would be used and a 5/16" hole needs to be drilled in the sheet metal. To mount to a thick metal surface, the location would need to be drilled and tapped to provide a 5/16"-18 threaded hole. For thick non-metal surfaces, drill a 7/16" hole in the material and screw in the threaded insert provided with a 5/16" hex key wrench.

After mounting the base module, connect the **LiteStyx** emitters to the base and securely tighten the connecting sleeves. Connect the wall mount power supply provided to the connector on the side of the base module. Plug the power supply into a wall socket or source of 120VAC. It should be noted that the wall power supply is capable of being used with voltages other than 120VAC. Consult the label on the power supply and choose the appropriate adaptor to connect to the main power desired.

OPERATING INSTRUCTIONS

Position both **LiteStyx** emitters to the desired location by grasping the end of the emitter and bending the flex-arm as necessary. **BE CERTAIN** that the bend radius is not smaller than about two inches. A smaller bend radius can permanently damage the **LiteStyx** flex-arm and require replacement. If the flex-arm is too short or too long to comfortably fit the application, consult the factory for a longer or shorter **LiteStyx** assembly.

To turn the emitters on or off, depress the control button which is located in the center of the **LiteStyx** label (switch is not visible). When the emitters are on, the unit is in the default "timed-OFF" mode and both emitters will turn off automatically in approximately two hours. To turn the emitters off, depress the control button again.

If it is desired to put the unit into the "continuous" mode which will keep the emitters on indefinitely, turn the emitters off and then depress and **HOLD** the control button for at least ten seconds. After ten seconds the emitters will automatically come on indicating that the unit is now in "continuous" mode. The emitters will stay on until the mode is terminated by depressing the control button or input power is interrupted. Following a power interruption, the emitters will not come on again until a new mode is selected.