RUNWAY LIGHTING

Benefits Sheet

Elevated LED Fixtures

Common Features and Benefits of Elevated LED Fixtures

- Arctic option (U.S. Patent 7192155 B2) uses a thermostatically controlled heater to prevent ice and snow buildup from obscuring light output. Melts ice similar to traditional incandescent fixtures. Heater is available on both glass and poylcarbonate options.
- Thermostatically controlled heater cycles on and off when temperature drops below freezing, reducing overall energy consumption
- Outer colored glass option ensures high daytime visibility
- Can be installed on existing 6.6 A or 20 A series circuits with no modifications to existing CCR or isolation transformer
- Operates on either 3- or 5-step ferroresonant or thyristor CCRs that are designed in compliance with IEC or FAA requirements
- Robust, solid-state device withstands damage if fixture is knocked over. Internal electronics ruggedly mounted inside fixture housing.
- LED module is an integral component of above-ground fixture, so electronics are not subject to water or deicing agents and abuse present in L-867 base cans
- LED photometric performance will be maintained longer due to a cleaner lens. The lower temperature of the lens prevents the "baking effect" that causes contaminants to stick to the surface of the lens.
- Very low power rating for LED lights contributes to a lower life cycle cost. Limits cost for supporting equipment such as isolation transformers and CCRs to strict minimum.
- Offers longer intervals between maintenance, resulting in lower life cycle costs
- When quartz-incandescent fixtures are replaced with LED fixtures, airport staff can add more lights without increasing CCR size
- For 6.6 A or 20 A series circuit applications, ";smart electronics" control current to LED, so light output matches existing incandescent fixtures at all brightness levels without sacrificing any light characteristics. Actual light output is determined based on a continuous light output curve. Therefore, light output truly represents input current, even if series circuit input current is not within FAA specification limits. Allows for a low cost and progressive evolution of the airfield lighting toward new LED-based technology.
- Direct replacement for existing fixture using existing frangible coupling and base plate, reducing installation time
- Use of LED light source eliminates filter replacement and color shifts common with incandescent fixtures when viewed at various angles or CCR step settings
- Fixtures use aluminum casting, stainless steel hardware, and are protected with aviation yellow powder coat finish
- Rugged lightning protection complies with ANSI/IEEE C62.41-1991 Location Category C2 given in FAA Eng. Brief 67. Category C2 is defined as a 1.2/50µS – 8/20 µS combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A.
- Designed to meet FCC Title 47, SubPart B, Section 15 regulations concerning the emission of electronic noise