

Siemens Airfield Solutions' Signature Series™ LED Fixtures Save Airports Time and Money

Siemens Airfield Solutions (SAS), the leader in airfield lighting LED technology, provides airports with a wide range of LED fixtures for both taxiway and obstruction lighting. Our exceptional team of engineers leads the industry in the research and development of new airfield lighting technologies and integrated visual guidance solutions. Our recent LED accomplishments include:

- The world's first single LED elevated taxiway fixture
- The first elevated LED fixture with an arctic option to meet customer needs in northern regions
- The first ETL-certified L-852T Style 3 omnidirectional taxiway fixture
- SAS's LED product range also includes L-852A-D taxiway fixtures and L-810 obstruction lights

LED fixtures are 2 to 8 times more energy-efficient than quartz-incandescent fixtures

ADVANTAGES

- Reduces existing load on associated CCR equipment when traditional fixtures are replaced with LED technology

BENEFITS

- Substantial reduction in electrical costs
- Lower life cycle costs of associated equipment
- Reduced equipment costs

Fixtures use long-life "Light Emitting Diode" (LED) high flux light sources

ADVANTAGES

- 100,000 hours at highest intensity (single LED fixtures)
- 200,000+ hours in actual operating conditions (>10 years)

BENEFITS

- Significant reduction or even elimination of ongoing maintenance costs and periodic re-lamping expenses

LED fixtures operate on existing isolation transformers and CCRs

ADVANTAGES

- No modification to existing CCR or isolation transformers
- When quartz-incandescent fixtures are replaced with LED fixtures, airport staff can add more lights without increasing CCR size
- Series circuit powered LEDs operate on 3- or 5-step CCRs

BENEFITS

- No additional investment to replace existing power supply equipment
- Can be used on 5-step CCRs, which provides increased light intensity control



"Smart electronics" control current to LED, match light output of incandescent fixtures

ADVANTAGES

- Dimming characteristics match dimming of existing incandescent fixtures at all brightness levels without sacrificing any characteristics of the light
- No noticeable differences in light output at all regulator current settings

BENEFITS

- LED fixtures can be mixed with existing incandescent fixtures, allowing for a low cost and progressive evolution of the airfield lighting toward new LED-based technology
- Maintains light output uniformity

No filters needed to achieve color

ADVANTAGES

- No color shifts when viewed at various angles or temperatures
- Eliminates need for filter replacement and inventory
- Fewer spare parts

BENEFITS

- Pure, crisp, uniform color is more easily seen in dense fog conditions
- Better pilot recognition
- Uniformity of light color
- Material cost savings
- Reduced labor requirements
- Longer intervals between maintenance



L-861T

- ETEL—World's first ETL-Certified single LED L-861T (Patent No. US 7,083,315 B2)
- ETES—Arctic option (patent pending) prevents ice and snow buildup from obscuring light output; melts ice similar to traditional incandescent fixtures.
- Low wattage: The ETEL fixture uses a single LED with only 11.2VA load on a 30/45W isolation transformer on highest step, making the ETEL L-861T fixture four times more efficient than traditional 45W fixtures, resulting in a significant reduction in energy costs
- When the heater is active on the ETES fixture, it has only a 25VA load on a 30/45W isolation transformer on the highest step. Energy consumption for the ETES fixture with the heater on is more than 15% below a standard quartz-incandescent fixture.
- Thermostatically controlled heater is designed to be equivalent to traditional incandescent fixtures
- Robust, solid-state device withstands damage if fixture is knocked over. Internal electronics ruggedly mounted inside base.
- 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
- 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.
- 10/15W and 20/25W isolation transformers are available for use with the ETEL and ETES fixtures to match fixture load for optimal efficiency (see catalog sheet 1215). A standard 30/45W isolation transformer may also be used.



ETES L-861T

L-852A-D

- Low wattage: Fixture uses 17.5W per side, making the LED L-852A-D fixtures 42% more efficient than traditional 30W fixtures and 63% more efficient than 48W fixtures, resulting in a significant reduction in energy costs
- FAA Style 3—Low protrusion above ground of ≤ 0.25 inch reduces vibrations caused by aircraft landing gear in both the light fixture and the landing gear, increasing LED light source life
- 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.
- Galvanic isolation from the series circuit transformer, protecting the LED module against over voltage



L-852A-D

L-852T

- Low wattage: Single LED with only 19.5VA fixture load on a 30/45W isolation transformer on the highest step, making the L-852T LED more than twice as efficient as traditional 45W fixtures
- FAA Style 3—Low protrusion above ground of ≤ 0.25 inch reduces vibration caused by aircraft landing gear in both the light fixture and landing gear, increasing lamp life
- 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 a strict minimum
- Mounts to an L-867B or L-868B base can (specify when ordering)



L-852T

L-810

- The 95-264V AC, 50/60Hz option has a load of 14VA, making it 8 times as efficient as traditional 116VA, 120V AC fixtures. The 24-48V DC option has a load of less than 7VA, making it 16 times as efficient as traditional 116VA, 120V AC fixtures. The 12V DC option has a load of less than 6VA, making it 19 times more efficient than traditional 116VA, 120V AC fixtures. All three options provide a significant reduction in energy costs.
- Very low power rating for LED lights contributes to a lower life cycle cost
- Offers longer intervals between maintenance, resulting in lower life cycle costs
- All parts are corrosion-resistant
- A safety cable attached to the lens cap permits hands-free, rapid LED module and lens replacement



L-810

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