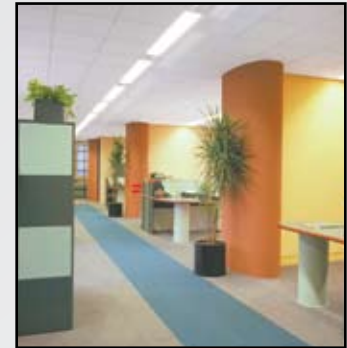




Why Specify a Central Lighting Inverter?

Full Fixture Light Output

A central lighting inverter can power the same indoor or outdoor fixtures already in place for task and convenience lighting when some or all of those fixtures are designated as "emergency lighting fixtures". The occupants feel more at ease as the illumination is coming from the "normal" fixtures. The light output for those fixtures will not diminish when transferred to the emergency AC power supplied by the central lighting inverter. With the proper connected lighting loads, this provides superior illumination for the designated path of egress under emergency conditions, allowing safe evacuation of the building.



Ease of Installation

For any installation, it will require far fewer central lighting inverters to provide acceptable emergency lighting fixture power than it will to install individual pieces of emergency lighting unit equipment. That reduces the amount of electrical contractor time and labor required, resulting in lower installed contracted labor cost.



Ease of Maintenance

With far fewer units to inspect and maintain, required testing and maintenance time and labor efforts are significantly reduced. Locating the equipment to test and maintain is much simpler and less time consuming with a centrally located emergency AC system, as opposed to individual pieces of emergency lighting unit equipment scattered throughout the facility.

HID Fixtures

Where HID fixtures are in use or being considered, a non-interruptible central lighting inverter is the ideal choice as an emergency AC power supply, even where an engine generator set is installed by code requirement.

Here's why: following an interruption in normal utility power, the Life Safety Code (NFPA 101) allows emergency lighting and power equipment up to ten seconds to transfer to emergency power; that includes engine generator sets.

HID lamps do not easily tolerate an interruption in power, especially one which could take up to ten seconds. Once the arc is extinguished, HID lamps must go through a "cool down" period, which could take up to 15 minutes, before they can be restarted. That's way too long to be in the dark in an emergency situation.



Outdoor Path Of Egress

Under emergency conditions, it's important to evacuate a building as quickly and safely as possible. In the absence of interior lighting due to an interruption in the normal power supply, the Life Safety Code (NFPA 101) calls for illumination of the egress path-way using an emergency lighting source and utilizing directional egress pathway markings to safely guide and direct building occupants to the "public way".

The Life Safety Code defines "public way" as "A street, alley, or other similar parcel of land essentially open to the outside air deeded, dedicated, or otherwise permanently appropriated to the public for public use, and having a clear width and height of not less than 10 ft (3050 mm)."

Could it be the area first encountered when evacuees pass through the last designated building "exit way", or is it located some undefined distance away from the building? In the majority of cases, the final ruling rests with the local "authority having jurisdiction" (AHJ). In some instances, it may be inconvenient or impossible to install building-mounted outdoor emergency lighting fixtures along what the Authority having Jurisdiction has decided is the "public way". In this case, using a central lighting inverter to power alternate outdoor lighting fixtures such as bollards, step lights or pole mounted fixtures may be the only way to provide adequate exterior emergency lighting coverage.



Area Of Coverage

Many large indoor or outdoor venues require a great deal of illumination for proper use. Stadiums and gymnasiums are typical examples. Following the requirement spelled out in the Life Safety Code, the emergency lighting arrangement must provide an "initial illumination level that is at least an average of 1 footcandle and a minimum at any point of 0.1 footcandle measured along the path of egress at floor level". The ability to generate this level of illumination in large venues is beyond the capability of most emergency lighting unit equipment. A properly sized central lighting inverter is the logical choice for these applications.



Other Critical Loads

In addition to providing emergency AC power for lighting loads, the central lighting inverter can also be used to provide emergency AC power for other critical equipment such as:

- Fire detection and protection equipment
- Directional egress systems
- Building management systems
- Automated door mechanisms
- Climate control systems
- Patient care support functions
- Security systems
- Communications equipment



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