CASE STUDY

US Department of Energy James Forrestal Building
LED Lighting Upgrade

Located in Washington D.C., the James Forrestal Building is the headquarters for the U.S Department of Energy. This nearly 1.7 million square foot building was built between 1965 and 1969 to accommodate U.S. Armed Forces personnel and is named after the first U.S. Secretary of Defense. In 1977 it became the headquarters of the U.S. Department of Energy after the agency's creation. It consists of 3 structures, the North, East, and West buildings, all of which are connected by underground office space.

THE CLIENT CHALLENGE

Retro-Tech was selected by an ESCO qualified for the DOE's Enable program to audit and design an LED lighting upgrade throughout the facility. The challenges included managing compatibility between existing fluorescent electronic ballasts and the DOE selected type A T8 LED lamps, addressing challenges related to dimming applications, and maintaining the integrity of the emergency lighting systems all while minimizing the impact and inconvenience to building occupants

THE LIGHTING SOLUTION

Retro-Tech performed a facility wide LED lighting upgrade. The majority of the work involved replacing existing 32 watt linear fluorescent lamps with type A tubular T8 LED lamps. However, a number of areas within the facility were identified as having ballasts that were not compatible with the T8 LED lamps. In those situations, RTS upgraded the ballasts to compatible ballasts. RTS identified T8 LED lamp compatible emergency lighting battery back up products. Other applications included recessed can light upgrades, retrofit kits, and light bars (for cove lighting applications)

THE RESULTS

The energy savings for a project of this magnitude were significant. The DOE expects to save over 1.7 million kWh per year in addition to substantial maintenance savings due to the extended life of the LED products. In all, RTS upgraded over 27,000 light fixtures, installing over 37,000 LED lamps of various types.