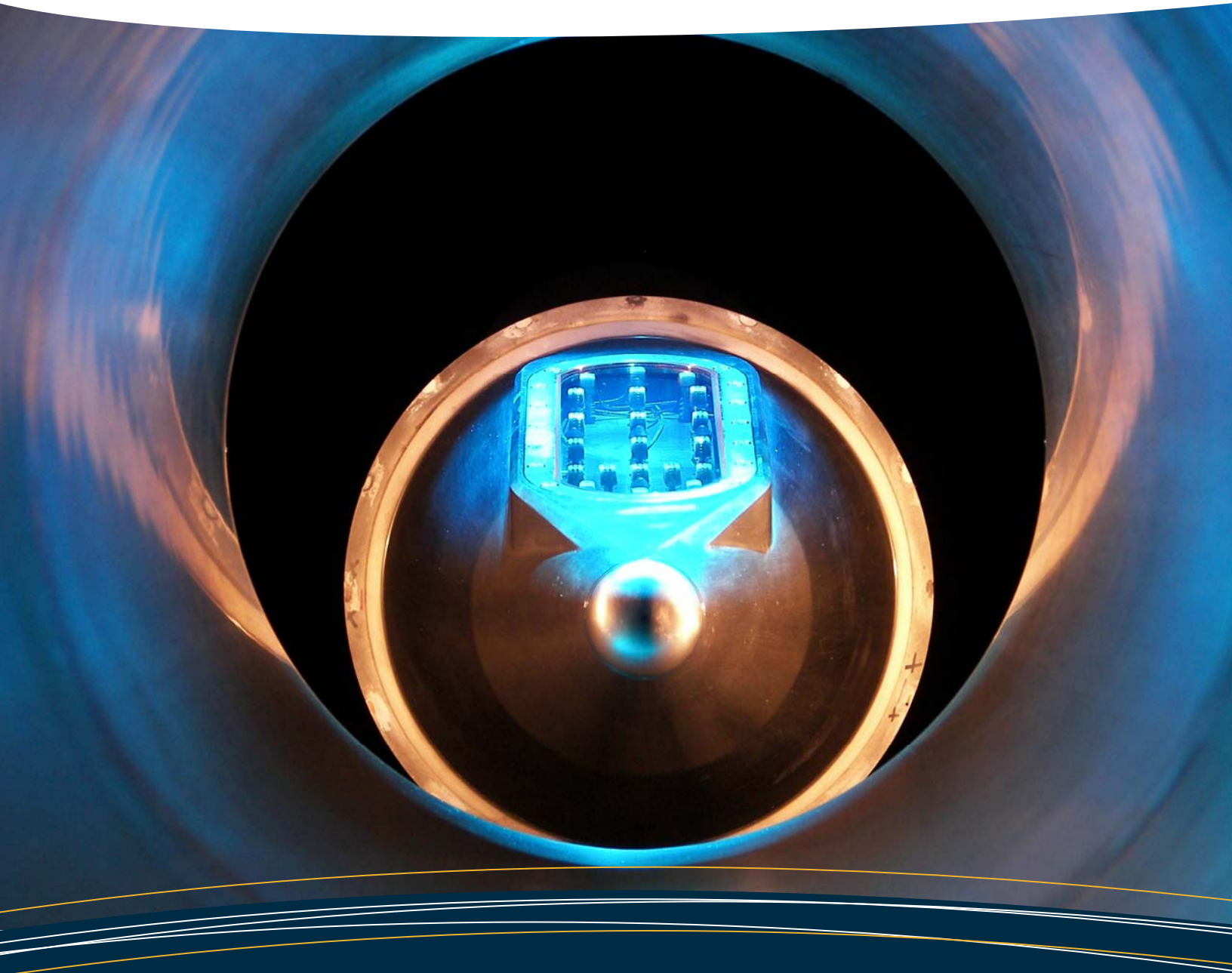




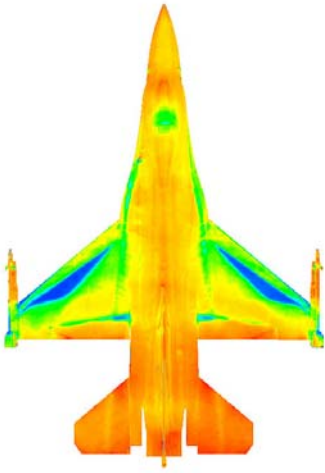
OPTIMIZING your buildings' performance



case **study**

customer: Arnold Engineering Development Center,
Arnold Air Force Base

service: lighting upgrade & retrofit



ARNOLD ENGINEERING DEVELOPMENT CENTER, ARNOLD AIR FORCE BASE

- LIGHTING AUDIT, DESIGN AND ANALYSIS
- MATERIAL STANDARDIZATION
- DECREASE ENERGY CONSUMPTION
- INCREASE LIGHT LEVELS
- HIGH SECURITY AREA

"I appreciate the professionalism of your workers while they were on site and look forward to working with you in the future."

Richard Steward, Contracting Officer, Arnold Air Force Base

case study Arnold Engineering Development Center, Arnold Air Force Base

LIGHTING UPGRADE REDUCES ENERGY CONSUMPTION

Located in Tullahoma, Tennessee, Arnold Engineering Development Center (AEDC) at Arnold Air Force Base is the world's largest and most complex collection of flight simulation test facilities. Based on 4,000 acres of the total 40,000 acres of Arnold Air Force Base, this facility has 230 buildings. Dedicated in 1951 by Harry Truman, Arnold Engineering Development Center has tested most of the high performance aerospace systems used by the Department since.

Servidyne was asked to perform a lighting audit on the AEDC facility to determine if such a project could reduce energy usage. After determining that AEDC could reduce their usage from a lighting upgrade, construction began.

For 112 of the 230 buildings, Servidyne provided the services of audit and design; installation of new fixtures; upgrade of existing fixtures and standardization of lamps and ballasts.

Because of high security within AEDC, many of the locations involved in the retrofit required armed guard escorts for Servidyne personnel, in addition to security badges and check points. Servidyne also provided room by room as built construction spreadsheets for all of the 6,137 line item retrofits completed at AEDC.

ENERGY IMPACT

While the goal of the lighting upgrade was to maintain existing light levels, Servidyne actually increased light levels slightly while reducing the number of fixtures by 15 percent. Overall, the lighting upgrade program at AEDC reduced the demand by 8.05 MW and reduced consumption by 2.8 million kWh annually.

1945 The Exchange, Ste 325
Atlanta, Georgia 30339
770.933.4200 tel
770.953.9922 fax
www.servidyne.com

part of the **solution**



CHALLENGES

- Work in areas of high security
- Minimal disruption of army personnel
- Decrease energy consumption due to lighting



SOLUTIONS

- Audit, design, and analysis of Air Force Base to determine areas of possible savings
- Upgrade existing fixtures to promote savings and increase light levels
- Lamp and ballast standardization for ease of maintenance
- Utilize Servidyne personnel to install lighting



RESULTS

- Achieve savings from reduction of energy consumption and material standardization
- Increased light levels
- Occupant satisfaction