



FACILITY

Fort Drum is a U.S. Army military reservation located in Watertown, NY and is home to the 10th Mountain Division. The facility is used for the planning and support for the mobilization and training of almost 80,000 troops annually. The compound comprises various training, recreational and housing facilities for over 12,000 soldiers and their families. The facilities include a 400,000 s.f. tarmac for military air transport.

CHALLENGE

The Federal Energy Management Program requiring Federal agencies to reduce energy intensity 30% by the year 2015 was the driving force for Fort Drum’s research into alternative lighting solutions. The challenge was to find a solution that could provide sufficient light from great heights for their military airfield. Weather conditions such as high winds and large amounts of snow were a concern due to the height of the poles and the northern location of the facility.

SCOPE

Replacement of the current 1000W high pressure sodium lights that were mounted on mast poles at a height of 110’.

SOLUTION

48, 1000W HPS lights were replaced with 24 Ephesus Visium 600 LED fixtures with narrow lensing on mast poles at a height of 110’ along the edge of the airfield.

RESULTS

Annual energy savings is estimated to be 239,016 Kw, or 73%, and an average of 5fc was generated in the center of the tarmac, twice the average before the LED upgrade. The Ephesus LED upgrade eliminated heavy maintenance costs and provided a whiter, brighter light that was able to illuminate more of the runway. In addition, only half as many light fixtures were needed due to the smart lensing technology that precisely focused light onto the tarmac.

“We are extremely impressed with the Ephesus LED solution that you have provided to the airfield facilities at the Fort Drum Military Base. The LED solution that you have provided us has resolved the many expensive and difficult maintenance issues that we have had. You have provided us a solution that no other LED manufacturer has been able to provide. Thank you for your commitment to providing Fort Drum with an intelligent engineering solution that is both energy efficient and dependable.”
 – Scott Murphy, Electric Shop Leader, Public Works, Fort Drum, NY