



Duluth Federal Prison

Minnesota



Owner

Federal Bureau of Prisons

Contract Type

Lighting Retrofit

Contract Amount

\$323,461

General Contractor

Facility Solutions Group

Energy Firm

ADI Energy

Energy Savings

68,063.09 annually

Number of Fixtures

Replaced 3,470

Annual kWh Reduction

588,331

LIGHTING RETROFIT CASE STUDY

Prison Updates Exterior and Interior Lighting

Challenge

The Federal Prison Camp, Duluth (FPC Duluth) is a minimum-security federal prison located in Minnesota for male offenders. It is operated by the Federal Bureau of Prisons, a division of the United States Department of Justice. The prison has 26 buildings that were part of the project scope. Existing interior lighting was linear T8 fluorescent and screw in CFL lamps. Exterior lighting consisted of CFL wall-mounted and flood fixtures. Working in a prison environment brings its own logistical challenges, so FSG's experience in this area in both the public and private sectors was considered to be of great value.

Solution

FSG updated the lighting throughout the facility including housing areas, offices, back of the house, warehouse space, maintenance shops, kitchens, and dining areas. Exterior site lighting was also updated. Interior fixtures were updated with LED tubes and screw-in lamps, while exterior CFL fixtures were replaced with new LED wall packs and flood fixtures.

Result

The new lighting system was installed with no disruption to prison operations. Outdoor lighting was upgraded to new fixtures with 100,000-hour life, versus the 10,000-hour life found on the existing lighting system. This greatly reduced maintenance costs going forward. In addition to substantial maintenance savings, electric costs were reduced by over \$68,000.00 a year.

