



VENUE

Juan Diego Catholic High School was founded in 1999. Its stadium is heavily used, between games and practices for football, boys and girls lacrosse, soccer, cheer and other events. The Soaring Eagles football team has won five state championships in the last ten years, most recently in 2017.

CHALLENGE

The facility's electrical system was taxed due to improvements to the snack bar over the years. Breakers frequently tripped, causing the lights to turn off. The metal halide lights then required 15-20 minutes to restrike, which disrupted games as well as posed a safety hazard to both players and spectators. Maintenance had become problematic while lamp depreciation and dirt accumulation caused reduced light levels, yielding around 14 FC and 4.9 max/min uniformity, compared to the original specification of 30 FC.

SCOPE

The project included a retrofit of the 1500 watt metal halide lights with energy-efficient Ephesus All Field LED fixtures and a control system.

SOLUTION

Ephesus All Field 750 fixtures were installed. The Ephesus solution, sold by Quantum Lighting Group, included AirMesh wireless controls to increase operational flexibility as well as to provide remote control and monitoring. It also provides dimming at various levels and the ability to create up to 25 pre-set scenes. The wireless system eliminated the need to run control wiring.

RESULTS

Juan Diego Catholic High School saw dramatic improvements in light levels, uniformity, performance and energy savings. The issues of the overloaded electrical system were solved with the new lighting. 50 FC of light were measured on the field, which is over three times brighter than the measurements taken under the old system. and , appropriate for the level of play. Player safety also improved due to increased visibility on the field. Max/min uniformity improved to 1.76. The school has achieved 57% energy savings before the energy savings of the dimming controls are factored in; the school regularly uses the 75% brightness setting for practices and the 100% setting just for competitive play.