

PROJECT PROFILE

UPMC Cooper Field House

Designed and installed by Daktronics



The UPMC Cooper Field House is the home arena for most of Duquesne University's major sports teams, including their NCAA Division I Basketball team: the Duquesne Dukes. During a recent renovation of the facility, Daktronics installed a Fulcrum Acoustic-based system to deliver the high impact sound that Duquesne was seeking.

Challenges

- Duquesne required a full range, high output sound system to maximize excitement during their sporting events.
- Strict pattern control was needed to maintain speech intelligibility and clarity of music.

Solution

Daktronics mounted Fulcrum Acoustic's FH15 Full Range Coaxial Horns in a center cluster above the court. Four FH1596s were selected for their 90° x 60° pattern to cover the lower-tier seating, while narrower-coverage FH1565s cover the upper seats. A fifth FH1596 faces straight down to cover the court. The FH's extended directional control keeps the sound focused on spectators while minimizing reflections, thus improving intelligibility and overall clarity.

Four of Fulcrum's Sub218L Subwoofers are suspended from the ceiling in a vertical array providing wide low frequency dispersion with vertical control. "The fidelity and output of the Sub218L is perfect for the exciting bass that fans are looking for," says installer John Carlson. "The fans eyes light up when they hear that bass. Even at lower sound levels, the system maintains a full, clean sound."

Seven CCX1295s provide supplemental coverage for seats shaded from the center cluster by the overhang from the upper seating deck. Fulcrum's patented Passive Cardioid Technology™ enables CCX12 loudspeakers to provide high output coverage without energizing reflective surfaces and degrading clarity.

Adjacent to the main arena is Duquesne's practice gymnasium. Four GX1526s provide coverage for the entire gym. "As an installer, I like how easily the entire system comes together," adds Carlson. "I appreciate that they use the NL4 to just click and lock. I can utilize sub contractors who aren't familiar with audio because these products are so installation friendly."

Project Details

Location

Pittsburgh, PA

Product Category

Sports Stadiums and Arenas

Project Type

3,500-seat sports arena

Fulcrum Products

Main Gym

(4) FH1565 Full Range Coaxial Horn 60° x 45°

(5) FH1596 Full Range Coaxial Horn 90° x 60°

(7) CCX1295 12" Coaxial Cardioid Loudspeaker 90° x 45°

(4) Sub218L Dual 18" Direct Radiating Subwoofer

Practice Gym

(4) GX1526 15" Coaxial Loudspeaker 120° x 60°

Supporting Products

QSC Q-SYS Core 510i DSP

