

Challenge:

The current 16-year-old antiquated lighting system didn't meet NCAA Regional Broadcast lighting standards or accommodate the new ACC Network, the American cable and satellite television channel launched in August 2019 dedicated to the coverage of the Atlantic Coast Conference.

Scope

The project included retrofitting the current 1500-watt metal halide lighting fixtures on the existing four poles and adding an additional four lighting poles to meet the NCAA best lighting practices for soccer and lacrosse. The recommendations help to ensure the quality of light needed for safety of the participants; enjoyment of spectators; and the quality required for regional television broadcasts.

Solution:

The 750-watt LED Ephesus All Field 750 fixtures were chosen and installed along with Ephesus' AirMesh control system with dynamic scenes. The 162 efficient All Field lights transmit data wirelessly, creating an intelligent network that can be accessed and controlled from anywhere for the operators. The AirMesh system allows operators to switch the lights on/off or dim to the desired level and accommodates up to 25 pre-programmed scenes. The flexibility of the system stores the power data, behaviors, alarms and critical events locally for maintenance and troubleshooting. The system is virtually maintenance-free, upgradable and future-proof.

To enhance its spectator's experience, the university chose the unique AirMesh Dynamic Scenes to add exciting light shows with flashing and sparkling effects.

Results:

- The luminaires emit flicker-free, uniform distributed light without hot spots or glare, allowing for the best possible view for players, fans and spectators watching at home.
- Using the All Field lights resulted in a more powerful installation, meeting and exceeding NCAA broadcast requirements.
- The AirMesh Dynamic Scenes hub, which is installed in the press box, allows operators easy access and control to enhance the game-day experience.

NCAA Best Lighting Practices: Soccer and Lacrosse National Broadcast:

Horizontal Light Levels: 75 footcandles (fc)

Horizontal Uniformity: 2.0:1

Vertical Light Levels: 75 fc to center main side high camera

45 fc to end line camera 2.0:1 to main camera

Vertical Uniformity: 2.0:1 to main camer

Grid Spacing: 30 ft. x 30 ft.

"The LED lighting installed on our soccer/lacrosse game field has made a remarkable difference in our fan experience. The new lights provided the much-needed increased brightness necessary for television. Also, the variety of programming options for use in the promotional aspects of the events and the added "sizzle" when the goals are scored, have greatly enhanced the fan experience. Plus, we're saving energy."

- Tom Gabbard, Sr. Associate Athletics Director for Facilities and Operations, Virginia Tech

