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Orlando Arena Lights Way for Sports Structures

By [Kyle Stack](#)  December 17, 2010 | 11:55 am | Categories: [Venues](#)



Basketball arenas aren't traditionally known for having distinctive architectural features. Orlando's [Amway Center](#) is looking to change that perception.

The \$480 million arena, which [opened in October](#) as the new home of the NBA's Magic and the Arena Football League's Predators, can be identified externally by the 180-foot spire which towers over the building's front entrance. If the spire is noticeable by day, then it's practically unavoidable at night.

That's because the tower is illuminated all day every day by 176 LED light fixtures, each of which is

composed of individual red, green and blue modules. They're slotted on 11 rings — 16 fixtures per ring — which run up the elliptical structure. The tower is wrapped in a steel frame that contains stainless steel mesh within. That's why the light is so visible, according to Brad Clark, a senior designer at Kansas City-based architecture firm [Populous](#), which spearheaded Amway Center's design.



“The light reflects off the inside of the mesh,” Clark told [Wired.com](#). “And because it's an oval shape, as it extrudes up the side of the tower, you're looking through the mesh to the backside of the mesh, on the other side of the oval. What you're seeing is the light bouncing off the inside surface that is beyond where you're looking. The colored light that comes through the openings goes out to nowhere. The reason it has color is you're seeing the perforations that define the tower's shape.”

The colored lights are programmable so that the tower can display blue for Magic games or red for Predators contests. Passers-by on Interstate 4, the elevated highway that runs along Amway's eastern edge, wouldn't have been privy to that information if Populous had gone ahead with its initial design for Amway.

Clark said the arena was originally drawn up as an oval. An interior ring of elevators and stairs would have had a color-changing effect, which would've been seen from outside, through the building's glass skin. Yet the cost of a glass curtain wall encircling the arena was too high, forcing Clark to change the arena to its current design.

The redesign enabled engineers to form a tower with a spire hovering above the front entrance, located at the site's northeast corner. That's when Clark incorporated the colored LED bulbs, rated to last 50,000-plus hours, to communicate who was playing on a particular night. “By taking that technology outside and extruding it in a vertical way, we were able to make it more impactful,” Clark said.

A 2-foot-by-8-foot mockup of stainless steel mesh on a wooden frame reflecting LED lights was built to gain a sense of its visual impact. “It proved it was doing what we wanted it to do,” Clark explained. Orlando Magic brass as well as the city government liked it, giving Clark the clearance to move ahead with the design.

And with the Sky Bar nightclub resting atop the tower, Amway's visitors can interact with the arena's most striking architectural component. It's one which finally gives a basketball arena an individuality similar to

that of baseball ballparks and football stadiums.

