

CPI DAYLIGHTING SOLUTIONS

Interactive Daylighting with Color Changing LEDs

Owner:

Akron Children's Hospital

Architect:

GPD Group

General Contractor:

Thomarios Construction Co.

CPI Regional Manager:

Jim Diffendal



Photo by William Lemke

Interactive daylighting & color changing LEDs help heal at the Akron Children's Hospital

Using LED light boxes to illuminate 14,500-sq.-ft. of CPI Daylighting's Pentaglas® panels covering a new five-story parking garage, the Akron Children's Hospital hopes to heal through color.

When the new adjacent children's critical care tower opens in May, patients in common areas and those with a window view from their rooms will be given iPads with controls to change the color of the panels as they see fit, creating an interactive mural of light visible to all.

"We were looking for something that could be illuminated and that would help punch the color from the LEDs out," said architect Michael Marz of Akron, Ohio-based GPD Group. "The ability of the Pentaglas panels to transmit the light uniformly and help diffuse it so we didn't have a single point source of light was what we were looking for. Blending nicely from top to bottom, we don't get any hot spots."

Free spanning from floor to floor, most of the Pentaglas panels are one continuous length, providing a seamless, flush look around the four-sided parking structure. Specified in ice white, the single panel Pentaglas system was installed in two custom sizes: 50-ft. tall by 12-ft. long and 32-ft. tall by 12-ft. long.

Featuring CPI Daylighting's Nano-Cell® technology which promotes long-term resistance to impact and wind loading due to its small cell structure and tightly spaced rib supports, the Pentaglas panels are made with a unique internal flexibility to absorb thermal expansion across the panel and in all directions. Most significantly,

Akron Children's Hospital

though, the panels offer superior light diffusion capabilities ensuring excellent quality of natural light and are 100% recyclable – making them ideal for any LEED project. Made with heavy-duty co-extruded UV protection, the Pentaglas panels come with a single-source warranty.



Photos by William Lemke

Due to the collaborative nature of the design-build project at the Akron Children's Hospital, the architects and contractors worked closely with CPI Daylighting to ensure success. "The hospital wanted to know that the installation would look right so CPI sent out panels and we did a full scale mockup on the floor before we installed the panels," said Marz.

Built to serve multiple hospital facilities, the parking garage has become a local attraction in the year it's been in operation.

"The panels have helped make the parking deck a real landmark in town," said Marz. "The first night they were operational, the president of the hospital was getting calls from people in the hospital and others in town saying it was really neat that the colors changed."

CPI Daylighting pioneered the use of polycarbonate translucent panel systems for architectural use in 1980. Today, CPI continues to offer new and innovative daylighting products, including skylights, wall lights and canopies for any commercial, industrial and institutional application, with complete services from manufacturing to design and installation. CPI products enhance the sustainability of any high-performance building project through daylight transmission levels, optimized insulation values, thermal performance and recycled content.