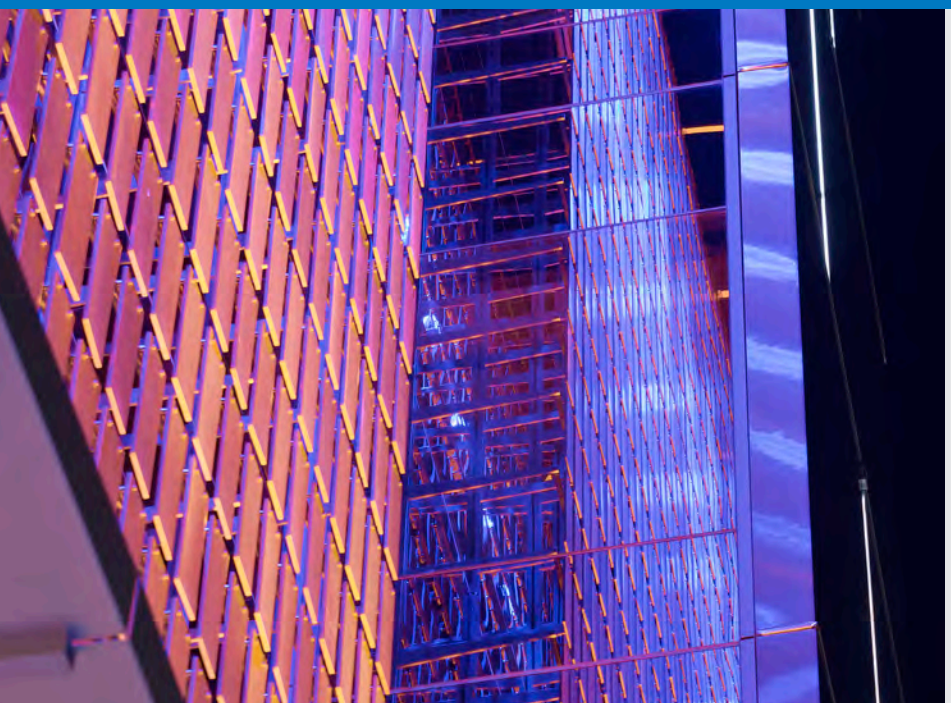
Case Study
Chandler City Hall

Location	Chandler, Arizona, USA
Philips Lighting	LED Lighting

PHILIPS

The City of Chandler was able to create a striking visual centerpiece for the city while adhering to the local Dark Sky ordinance, minimizing energy consumption, and keeping operational and maintenance costs low.

eColor Blast Powercore fixtures offered the throw, color saturation, and optical control required to achieve the uniformity and precision of mixing called for by the design.



Fast Facts

Industry Sector
Exterior

Fixtures
eW Blast Powercore, eW Graze Powercore, eColor Blast Powercore

Architect
SmithGroup, Phoenix

Lighting Design
SmithGroup, Detroit

Photo Credit
Timmerman Photography

For the past twelve years, the service departments and employees of Chandler City, Arizona, USA, have been scattered across a number of different facilities throughout the city. The city recently built a new 137,700 sq ft (12,793 m^2) City Hall to give the city center a new identity and to serve as a centralized location for all service departments and government employees. The new complex houses administrative offices, a public television studio, the City Council chambers, an art gallery, and public lobbies.

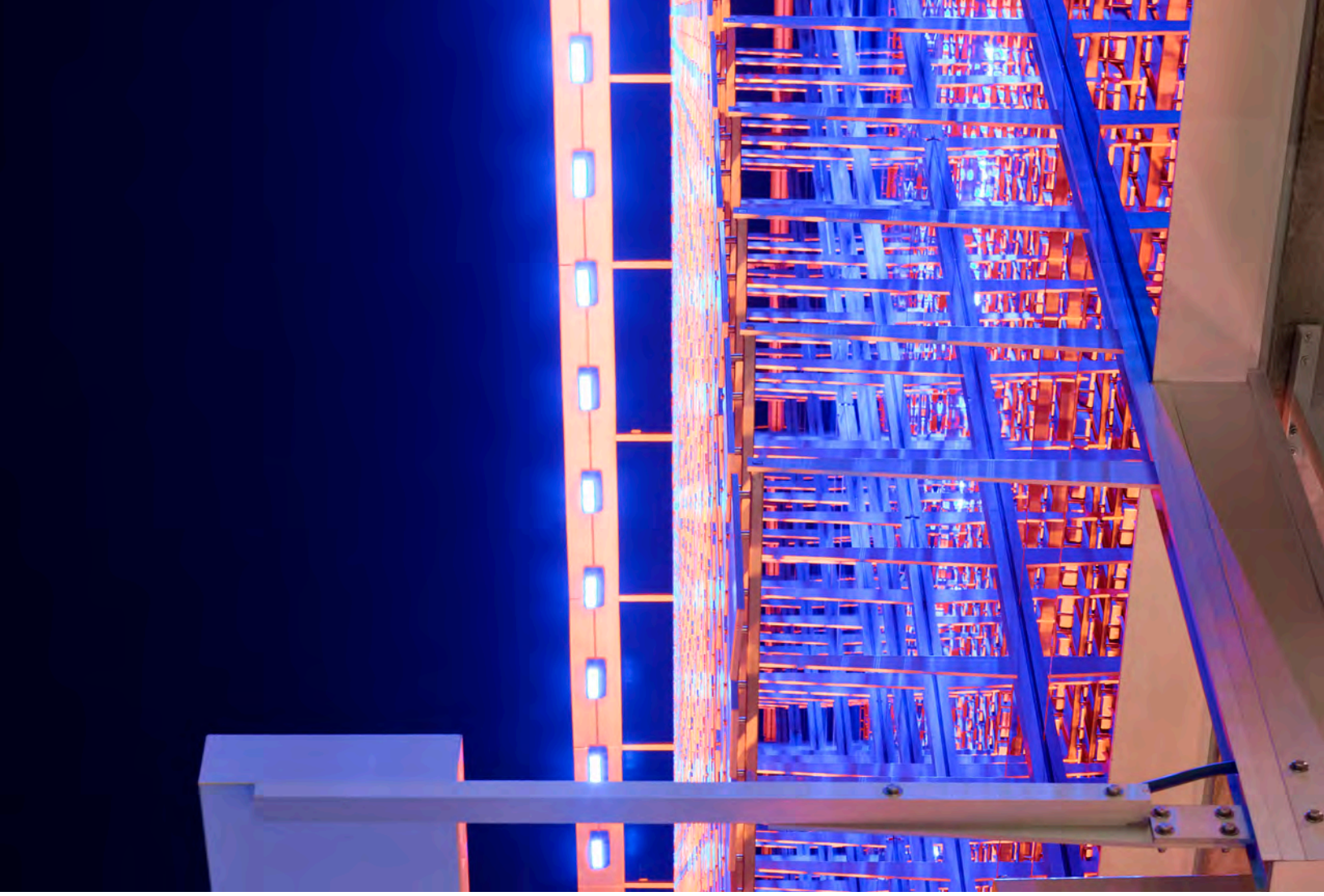
Architectural and lighting design services for the $47 million project were provided by SmithGroup, with the lighting design under the leadership of Principal Jeff Gerwing. SmithGroup's proposed design combined the rich legacy of historic downtown Chandler with the community's commitment to cutting-edge technology.

SmithGroup constructed an iconic centerpiece for the complex — the new Council Chambers. To create an unusual and stunning visual effect, they clad the fully enclosed 30 ft (9.1 m) tall chamber with translucent glass panels, then backlit the panels with 28 eW Blast Powercore LED wash lights from Philips Color Kinetics. The designers also used 100 eW Graze Powercore LED grazing fixtures to provide additional backlighting and to achieve an even distribution of light over the various mounting conditions.

The city commissioned an original piece of artwork as part of the complex. Artist Ned Kahn created a façade of movable metal scrim made of a series of independent, perforated stainless steel screens. The action of the wind creates ripples along the scrim, which produce brilliant kinetic effects in direct sunlight. Gerwing wanted to create a complementary nighttime effect by incorporating pure blue and amber light into the sculpture — amber to represent the earth tones of the Arizona desert, and blue to represent sky.

When designing the color scheme, Gerwing incorporated theatrical lighting techniques. He wanted saturated blue light at the top of the scrim and saturated amber light at the bottom, with a mixture of amber and blue light in the middle. To achieve this effect, Gerwing needed fixtures that could throw colored light to a distance of over 50 ft (15.2 m) without losing intensity. He considered using metal halide fixtures, but he was concerned that their large housings would be obtrusive and detract from the visual experience. He also wanted to ensure the saturation of the colors would be as vibrant as those of nature.

Gerwing had successfully used LED lighting fixtures from Philips Color Kinetics in the large-scale installation in the Edward H. McNamara Terminal at Detroit Metropolitan Wayne County Airport in Michigan,



which has been running continuously since 2001. For the kinetic artwork, Gerwing specified eColor Blast Powercore LED wash lights, solid-color versions of eW Blast Powercore, to produce the specific amber and blue colors he wanted. The eColor Blast Powercore fixtures offered the throw, color saturation, and optical control required to achieve the uniformity and precision of mixing called for by the design. Because of their low profile, Gerwing was able to completely conceal the fixtures by mounting them in 6 in (152 mm) trays. "When I finished aiming the lights, the assistant city manager was clapping," said Gerwing.

LED lighting solutions supported the project's sustainability and energy-efficiency goals. With LED lighting solutions from Philips Color Kinetics, the City of Chandler was able to create a striking visual centerpiece for the city while adhering to the local Dark Sky ordinance, minimizing energy consumption, and keeping operational and maintenance costs low.

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