

LIGHTING FROM THE INSIDE OUT



OUTDOOR LUMINAIRES BLUR THE LINE BETWEEN INTERIOR AND EXTERIOR SPACES.

BY ELIZABETH DONOFF

Outdoor lighting represents one of the broadest and most diverse groups of product offerings in the lighting industry. This is in part because exterior illumination applications vary widely and range dramatically in scale. When you talk about outdoor lighting and its myriad project applications, it can include landscape and pathway lighting, building facade and floodlighting, and street and area roadway lighting. As a result, certain product category subsets, such as “Landscape” and “Street and Area Roadway,” have developed within the lighting industry

to help manufacturers as they develop market-ready fixture portfolios to meet designers’ project needs and to address the specific illumination criteria for these varied project types.

Over the past 15 years, lighting as a whole has experienced an unprecedented technology shift with the introduction of light-emitting diodes (LEDs). Every aspect of lighting has been affected, including the very makeup of the industry, the research and development of new lighting products, and technology platforms. Outdoor lighting as a whole, and in

particular street and roadway lighting, has benefited from this transformation to LEDs. The lighting industry uses an organizing system of 12 to 15 established product categories. Outdoor was among the first lighting categories to adapt quickly to the greater lumen output and cooler color temperatures of LEDs and to embrace the potential for new fixture designs.

The demand for outdoor lighting fixtures is expected to increase annually by 6.7 percent, to reach \$5.5 billion by 2022, according to a recent

ABOVE
For an indoor-outdoor courtyard, the Rondo Adjustable Outdoor luminaire provides a residential scale of illumination for planter and pathway lighting.

COURTESY RONDO

AN INCREASED INTEREST IN OUTDOOR LIVING IS ONE OF THE LATEST TRENDS DRIVING THE DEVELOPMENT OF NEW LUMINAIRES.

report by the Cleveland-based industry research firm the Freedonia Group. This increase in demand stems in large part from the adoption of LED street and roadway lighting, as well as “increasing consumer interest in outdoor living.”

Indeed, this increased interest in outdoor living is one of the latest trends driving the development and introduction of new luminaires for the outdoor lighting arena. Architects, landscape architects, and lighting designers are being asked to create spaces that blur the line between interior and exterior. As a result, designers are looking for fixtures that have a more decorative look but are robust enough to withstand harsh weather conditions such as rain, wind, and snow, along with extreme temperature fluctuations.

Although outdoor living in and of itself is not new, outdoor decorative light fixtures that have a residential look and feel but can meet the needs of exterior commercial applications are. The manufacturers we spoke with felt the new product investment was worth it because of the number of customer requests they receive, and their own market re-

search confirmed this product void in the market. Now, after a 12- to 16-month period of research, development, and production—the typical time to bring a light fixture to market—this new group of fixtures has started to appear in manufacturer catalogs. We asked several manufacturers for their take on what’s happening in the outdoor lighting space and what were some of the challenges in creating this new class of high-performance outdoor decorative fixtures.

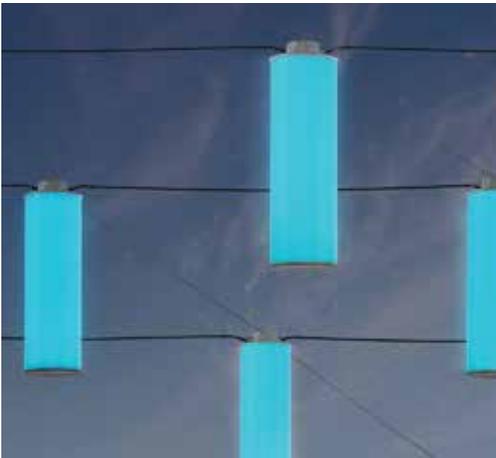
Visa Lighting, in Milwaukee, considered extreme winds and snow loads in developing a new line of catenary fixtures. “We had to apply testing procedures that the Department of Transportation uses for evaluating roadway luminaires,” says Scott Nejedlo, a senior project engineer at Visa Lighting.

Renee Green, the CEO of Tegan Lighting in San Rafael, California, thinks in terms of modular, flexible fixtures. “Specifiers want an infinite number of design options,” she says. Design options also translate into technology options. Before LEDs came along, low voltage was the norm for outdoor and landscape lighting applications, and “voltage

drop,” or a loss of voltage along a circuit, was a handicap. “Designers always had to be conscious of voltage drop and were limited in the number of fixtures they could use and by the length of cable runs,” says Drew Goldman, a vice president of sales and marketing at PureEdge Lighting, based in Chicago. “Now with LEDs you can achieve greater distances between the fixture and the transformer without worrying about voltage drop. On the one hand, that means you can use fewer fixtures, but more importantly it means you can locate fixtures exactly where you need them.”

In landscape applications, the look of a fixture is as important as its performance. Design coupled with technical operation is also crucial in understanding the needs of different specification communities and world markets. One such example is the 90-year-old Italian lighting manufacturer Targetti, which broke into the North American lighting market in 2015 with the establishment of Targetti USA. Headquartered in Costa Mesa, California, it operates as an independent business unit, and this has given the U.S. group the best of both worlds:

SEQUENCE OUTDOOR PENDANT



OUTDOOR TRACK



OUTDOOR TRACK (DETAIL)



to be able to take advantage of the company's rich history, knowledge, and experience in luminaire design and development while meeting the needs of the U.S. specification market head-on, says Targetti USA CEO Marie Paris.

In terms of product, that has translated into floodlighting options that depart from the traditional cylinder housings such as the company's introduction of the Dart family of luminaires, as well as the desire for greater light output in small linear packages. Most recently, the company launched Jedi, a wall wash luminaire in projector, compact, and recessed versions. "It used to be that you could not get enough light [lumens] out of a fixture for large areas," says Antonio Cuccoli, a vice president of sales at Targetti USA. "LEDs have eliminated that issue, and we are back to focusing on lighting and the quality of light, and selecting the best fixtures for the application."

With design, light quality, and technical performance in mind, the following products are some of the newest decorative outdoor lighting offerings. Created specifically to meet the project needs of indoor-outdoor living, they also help facilitate a dialogue between landscape architects and lighting designers looking to create seamless projects where light and landscape are one.

Sequence Outdoor Pendant

The Sequence pendant is a luminous cylinder, one of a trio of new outdoor luminaires Visa Lighting introduced this year. It is designed and tested to ANSI C136.31, the *American National Standard for Roadway and Area Lighting Equipment—Luminaire Vibration*. It can withstand a variety of harsh weather conditions, including extreme wind loads. The eight-inch-diameter luminaire is available in one of two mounting options: catenary, a suspended cable system supported between two structures, or canopy, mounted to a junction box similar

to indoor pendant applications. It is offered with both white and RGB (red, green, blue) LEDs and includes an integral power supply. The white LED option is available in three color temperatures—3000K, 3500K, or 4000K—and delivers 2,800 to 4,400 lumens depending on the wattage selection, either 35 watts or 48 watts. The fixture comes standard with zero- to 10-volt dimming unless another dimming protocol, such as DALI (Digital Addressable Lighting Interface), is specified. The color-changing RGB option uses a 29-watt LED and is DMX controlled with remote device management for digital addressing. The fixture is IP65 rated and ETL listed for wet locations, and finish options include a choice of 16 colors.

See visalighting.com.

Outdoor Track

This track lighting system is designed specifically for outdoor applications such as patios, backyards, and outdoor bar and restaurant

EXTON IP65 LED TRACK



JEDI

JEDI (DETAIL)



areas. It uses 12-volt AC low-voltage wiring without the need for conduit pipe. The remote power supply can manage up to 300 watts or up to 24 fixtures (approximately 30 feet) before refeeding is required. The microsurface track heads measure 3.52 inches long by 2.35 inches in diameter, and have a 1.91-inch armature drop from the track. They rotate 360 degrees, tilt 180 degrees, and can accept a 12-volt LED MR16 lamp up to eight watts (Soraa's Vivid 7.5-watt MR16 LED lamp is recommended), or a 12-volt halogen MR16 lamp up to 50 watts. Track components are sold separately and include exterior track with an aluminum body and endcaps, available in four- or eight-foot lengths; 10-gauge, three-wire, two-circuit cable; an exterior track canopy cover box; and an exterior transformer that measures 8 inches by 4.2 inches by 3.5 inches. The system is dimmable when used with any magnetic low-voltage dimmers, supplied by others, so long

as the dimmer's minimum load is covered. The lighting package is rated for exterior or wet locations. Component finish options are black or white. See edgelifting.com.

Exton

Designed as a modular system, the Exton family of luminaires has a variety of interchangeable lamp modules and shades that can be repositioned along a Powerspan cable. All the lamp modules use a five-watt, 2700K LED from Cree that is zero- to 10-volt dimmable as well as an integral 24-volt DC driver from Tegan. The primary element of the system is the Kore EX LED monopoint module, which measures 2 7/8 inches high by 1 5/8 inches in diameter and is available in brushed color anodized finishes. From there, the module can be outfitted with additional elements including a 15-degree reflector, a frosted cylinder gem or frosted globe, and a 12-inch-diameter Labyrinth orb or Bolle bell shade.

Mounting options are either direct or suspended, and the system is IP65 rated.

See teganlighting.com.

Jedi

This adjustable linear projector is designed for wall washing, wall grazing, floodlighting, and spotlighting. The marine-grade fixture housing is composed of extruded anodized aluminum and includes an extra clear, four-millimeter-thick glass flat screen and painted black die-cast aluminum endcaps. An internal cylindrical lens with a high-reflectance anodized aluminum reflector enables wall washing, grazing, and floodlighting, and the spotlighting version comes with individual lenses for more precise beam control and higher light intensity. The luminaire is available in three lengths: 24 inches, 36 inches, and 48 inches; three wattages: 27, 38, and 49 watts; and four color temperatures: 2700K, 3000K, 3500K, and 4000K at a color rendering

RONDO ADJUSTABLE OUTDOOR



TORRES



ELPHA 14 OUTDOOR



ELPHA 14 OUTDOOR (DETAIL)



index of 84. Lumen output varies from 1,500 lumens to more than 5,000 lumens depending on wattage, color temperature, and optical distribution selected. The fixture features an integrated electronic driver with either a nondimmable or a zero- to 10-volt dimmable option. The fixture is IP68 rated and cULus wet location listed. See targettiusa.net.

Rondo Adjustable Outdoor

This adjustable outdoor fixture is designed to be either wall- or ceiling-mounted, or aboveground with the addition of a junction box for planter and pathway applications. The eight-watt LED luminaire is available in 2700K or 3000K and provides 800 lumens. A 1.75-inch-diameter diffuser at the center of the five-inch-diameter aluminum housing conceals the LED source from the viewer's eye. Overall, the fixture extends 7.5 inches from its mounting plate. It operates at 120 volts and is dimmable only with a TRIAC (Triode for

Alternating Current) system. Color options include standard black or white finish or custom colors based on RAL numbers. See archlit.com.

Torres

Designed by Rodrigo Torres in collaboration with the lighting designer Chip Israel of Long Beach, California-based Lighting Design Alliance, this family of outdoor LED luminaires features area, path, wall (shown), and catenary versions. Applicable for a variety of exterior applications such as urban landscapes, campuses, and transit stations, the optics and LED package for each fixture type corresponds to the installation. All of the luminaires are available in 3000K, 3500K, and 4000K and are composed of a cast aluminum body with a proprietary powder-coat finish. They are zero- to 10-volt dimmable, International Dark Sky approved, as well as UL listed and suitable for wet locations.

See landscapeforms.com.

Elpha 14 Outdoor

This outdoor sconce is designed for both residential and commercial outdoor lighting applications. Its design allows the light provided by the 9.5-watt 3000K LED, with a color rendering index of 90, to wash smoothly down the open triangular housing. The fixture provides 331 delivered lumens for outdoor spaces and is dimmable. Fixture dimensions are 13.4 inches tall by 7.5 inches wide by 3.7 inches deep. A 10-inch-tall version is also available. Finish options include bronze or charcoal; the fixture comes in 120-volt or 277-volt versions and is wet rated.

See lblighting.com. ●

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