



OptiField

Uniformity never looked this good

Technical Overview



Standard optical system cone-shaped beam

OptiField



OptiField

Uniform light means exceptional results

Your eyes can't be fooled for long. They notice variations in brightness, banding, hotspots, and other imperfections. That's why lighting professionals work hard to achieve illuminance uniformity in commercial LED lighting projects. Uniformly lit surfaces appear even, with same brightness at all points—such as up the full length of a building façade or along a wall in a large retail store.

Let's just call it *beautifully even light*. And the technology that creates it? OptiField.

OptiField delivers the kind of even illuminance that lighting professionals have dreamed of for years. It opens up new possibilities for innovative lighting effects that were nearly impossible in the past. And now it's available with a growing number of our white and dynamic color luminaires.

Uniformity without complexity

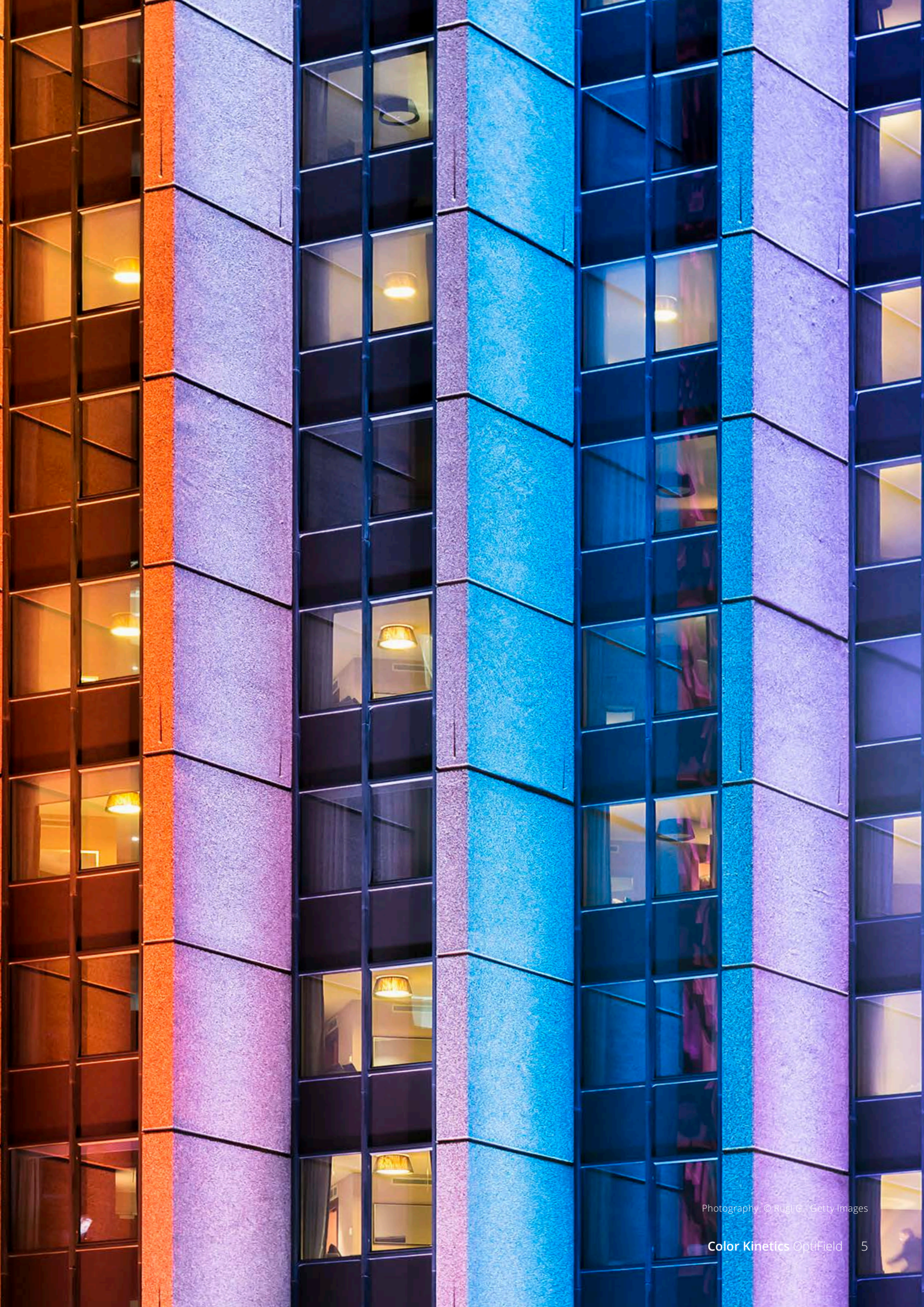
Like perfection, uniformity is difficult to achieve in the real world. When lighting gets noticed, it can sometimes be for the wrong reasons. Visitors might see bands of light along the side of a landmark building. Retail customers might see glaring hotspots on the walls. These flaws distract the eye and diminish the experience. Even the most fantastic design will fail if it's marred by lapses in uniformity.

With OptiField, flaws and artifacts disappear. Its unconventional optical system outputs a breakthrough beam shape that illuminates large surfaces with full, bright, even coverage. No more guesswork. No more time-consuming on-site aiming. No more struggling to meld overlapping cones of light from multiple light sources.

When should you choose OptiField?

OptiField's exceptional uniformity makes buildings look more pleasing and interior spaces more welcoming. OptiField truly shines in retail spaces, building façades, hotels and casinos, and other high-visibility, high-traffic interior or exterior locations. Anywhere that needs beautifully even light—that's where you need OptiField.





Photography: © Rüdiger / Getty Images

It's all about the beam

While the panel of light that OptiField creates may look simple, it's deceptively hard to create.



Changing the shape of a beam of light from a cone to a field requires a major rethinking of the optical system that creates that beam. Most optical systems use a symmetrical lens (or optic) to shape and deliver LED light. But OptiField uses a *free-form* optic. Think of them as the *shape-shifters* of optics. They're free to take any form, depending on the goal of the engineers that design them.

Our team of engineers, optical experts, and other innovators began with one goal—to output extremely even, uniform light. The ideal shape they envisioned was a vertical rectangular field of even light with carefully controlled fading at its edges, enabling easier integration of multiple luminaires. Achieving this optimal beam pattern required specialized software and tools, as well as a great deal of experimentation and testing. And meticulous manufacturing to produce these optics consistently, at high volume. In short, it was a lot of work.

The result of our years of intense research and development? A dome-shaped optic that delivers a new beam shape—and remarkably uniform light. When lighting professionals see an OptiField luminaire in action, they're amazed by what they see—even, bright, beautiful light. And by what they don't see—hotspots, banding, color variation, and other flaws.

Standard optical system cone-shaped beam



OptiField





Photography: Getty Images





Exceptional uniformity is just the beginning

OptiField technology helps lighting designers, building owners, and other lighting professionals achieve maximum uniformity. That's its core benefit. But uniformity is just part of the OptiField story:

Energy Efficiency.

OptiField is an energy-efficient technology that directs light to the intended surface with high delivered lumens—as well as lower energy consumption. High efficiency delivers savings and helps meet stringent energy codes.

Design Flexibility.

You'll find OptiField integrated into a wide range of Color Kinetics luminaires optimized for specific applications—including wall grazing and wall washing. It's available in different form factors and setbacks, and can be easily aimed to meet a broad set of challenges, wall types, and orientations (vertical/horizontal). This gives you flexibility across a wide range of applications, architectures, and implementations.

Simple Implementation.

Color Kinetics OptiField luminaires are fast and easy to implement and reliable to use, year after year. They offer a simpler alternative to current approaches, which tend to require multiple luminaire types or time-consuming on-site aiming and adjustments to achieve uniform illumination.

OptiField and IntelliHue—Our power couple

OptiField creates walls of light that cover surfaces evenly and beautifully. IntelliHue delivers high-quality white light, subtle pastels, and fully saturated colors in the same precisely controllable luminaire.

Consider the possibilities.

Lighting designers tell us that OptiField and IntelliHue offer a particularly compelling combination of uniformity and flexibility.

Thanks to the carefully controlled edges of the OptiField beam, you can light a wall or other surface with sharply delineated vertical bands of color (e.g., red, white, and blue) without bleeding and unintended color-mixing. You can create spaces lit with flawless white light by day and beautiful color at night—with complete accuracy across the entire range of color temperatures.

No matter what the design or application, OptiField and IntelliHue combine to deliver uniform light with precision control. And help you achieve your singular vision.

Configuring OptiField in the field

OptiField luminaires are ideal for exterior and interior applications that demand high levels of uniform illuminance—as well as high delivered lumens and limited spill light. From wall grazing and wall washing to uplighting and downlighting ceilings and walls, OptiField luminaires are flexible, easy to implement, and extremely reliable.

New technology can raise questions about how to use it to its best advantage. Since OptiField creates a new beam shape (and resulting pattern), it merits a closer look at how to get the best possible results. Review the specific luminaire Specification Sheet for details such as setback distances and luminaire rotation.



Color Kinetics technology portfolio

We continually explore your challenges, invest in research and development, and make the significant commitment required to develop and perfect breakthrough technologies. The result of decades of work, our unequaled portfolio of

proprietary, quality-enhancing technologies helps you achieve the best possible results. These technologies increase quality by ensuring sustainability, consistency, raising uniformity, providing precision control, and more.



Optibin

Where consistency begins.

Our LED optimization technology begins the color consistency process by grouping (or binning) LEDs by flux as well as center wavelength. This proprietary binning optimization process uses an advanced bin selection formula that exceeds industry standards for chromaticity. The result? Higher uniformity and consistency of hue and color temperature for all our luminaires.



Chromasync

Optimize output & color consistency.

Our advanced output optimization technology controls and boosts output while ensuring color consistency. When enabled, Chromasync ensures excellent color consistency between luminaires, without manually adjusting color points on each luminaire.



IntelliHue

The smart way to deliver white & color light.

Our advanced approach to color mixing produces high-quality white light, subtle pastels, and fully saturated colors in the same precisely controllable luminaire. All with unrivaled color accuracy across the entire range of color temperatures.



OptiField

Uniformity never looked this good.

OptiField's freeform optic creates a breakthrough rectangular beam that covers large surfaces with full, bright, even light. And OptiField can cover more surface area with fewer luminaires — simplifying installation while lowering energy use.



Powercore

Power made simple.

Our patented approach to power output proves that simple is better. As well as faster, more efficient, and accurate. Powercore® controls power output to luminaires directly from line voltage. It merges line voltage with control data and delivers both over a single standard cable—dramatically simplifying installation and lowering total system cost.



IntelliPower

Retrofit made easier.

IntelliPower is a groundbreaking implementation of proven power line carrier technology (PLC), a system for carrying data on the same conductors used for transmitting electrical power. By applying the principles of PLC, IntelliPower lets you install and digitally control intelligent Powercore luminaires using existing electrical branches, 2 + ground wiring, and luminaire mounting points.

What matters in professional lighting?

Our series of guides explores key topics in professional lighting—Color Science, Light Matters, Quality Matters, Optics Matter, and more. It's part of our commitment to passing on our deep technical knowledge and decades of expertise to help you achieve your vision.



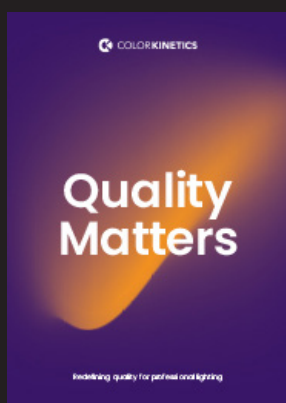
Color Science

Color science serves as an underlying technical foundation for the entire lighting industry. It establishes a consistent way of thinking about light—how it is created, controlled, and delivered in real-world implementations. A core understanding of the science of color is critical to lighting professionals, who must be able to specify the right light—color, technology, luminaire, and more—clearly and accurately.



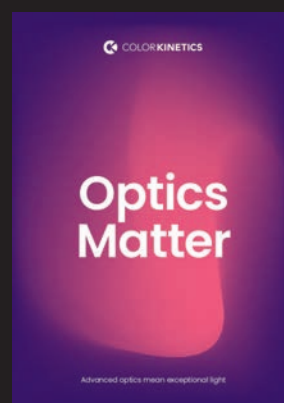
Light Matters

Traditional methods of evaluating light focused on lumen output, which was defined by the output capabilities of a light source, such as an incandescent lamp. The advent of LED lighting changed all that, since lumens were no longer the best measurement of a luminaire's capabilities. We explore some of the new ways lighting can be evaluated in the age of LED.



Quality Matters

What does quality mean to you? The answer depends on what you do within the lighting industry. Quality has different meanings for building and site owners/managers, lighting designers, and installers. We delve into the needs of each of these groups as we take a holistic approach to quality, one that begins and ends with the customer.



Optics Matter

It's safe to say that few lighting designers, building owners/managers, or other lighting professionals have ever seen the optical system housed inside an LED luminaire. But the optical system, or optics, play a vital, but often hidden role in performance, efficiency, and more. The right optics within a luminaire make a big difference in the final results—for both interior and exterior applications.

Choose the luminaire that meets your needs

OptiField is just part of the ongoing effort by Color Kinetics to set new standards for consistency. These technologies work together to deliver the accuracy required by innovative and ambitious dynamic color applications.

To find out more about how to make Color Kinetics luminaires part of your next lighting design, visit www.colorkinetics.com



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