

KENALL® *THE COMPETITIVE* **EDGE**

Issue #6

KORE Technology

New Patent-Pending KORE Technology™ Eliminates Striping & Glare

The Problem:

Cleanrooms and containment areas contain hard, glossy surfaces everywhere: windows, walls, floors, doors, monitors and equipment. As light from traditional fixtures reflects off these surfaces, it creates veiling reflections that cause eye strain, migraines and disability glare; interfering with worker safety, productivity and comfort.

Luminance (or luminous) contrast is the amount of light reflected from one surface or component, compared to the amount of light reflected from the background or surrounding surfaces.

The Solution

To prevent glare and, as a result, distracting reflections in this highly precise environment, cleanroom lighting should have a lens luminous contrast ratio of $<2.0/1$. This can be accomplished by reducing the luminous contrast of the LED lens. Distributing the flux across the full aperture hides the LEDs as well as their reflections on glossy surfaces.



Select Kenall luminaires now employ patent-pending KORE Technology creating a low luminous contrast of 1.5/1.

KORE Technology provides the required lumens from the lowest possible surface brightness (luminance), resulting in a uniformly lit lens at every power level. The final result is that the glare-creating maximum luminance (brightness) is now greatly reduced, while the minimum luminance is increased.

So how does KORE Technology work?

Kenall engineers combined optics, special reflectors and a unique lens to create uniform lens luminance. The key is in the combination of these three.

Collimating optics capture nearly all the light and create narrow beams aimed at the reflectors. The reflectors are made with an ultra-reflective coating that diffuses the narrow beams, sending them to the lens.

After its first reflection, light will either exit through the special, highly-receptive lens or reflect back onto the UR coating, where it is recycled with minimal loss.



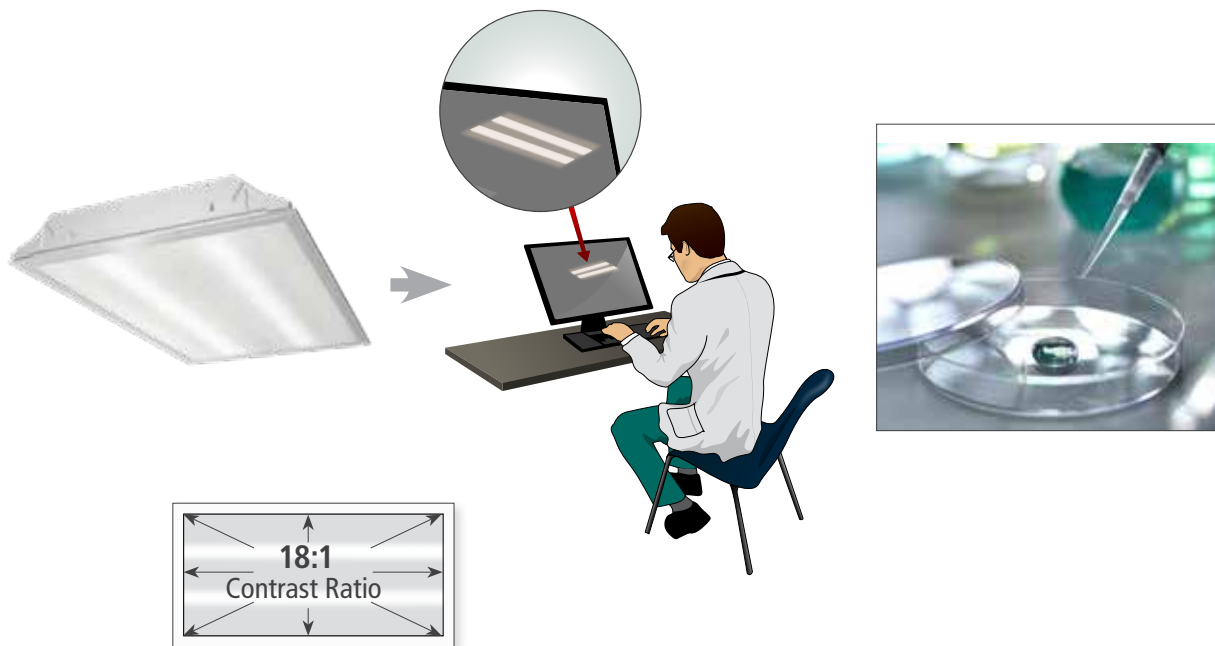
The trapezoidal reflector and optics work together to evenly distribute radiant flux across the lens, creating a **highly efficient 1.5:1 lens uniformity**

Luminaires with KORE Technology™



The SimpleSeal CSERO and CSERI luminaires use KORE Technology to reduce the maximum, and increase the minimum, luminance to a comfortable balance of 1.5:1. This low luminous contrast is indiscernible, and, therefore, considered uniform in brightness.

Standard Cleanroom Fixtures



Competitor Fixtures: Fixtures that use linear LED boards and prismatic-pattern lenses create very high contrast – as high as an 18:1 max. to min. ratio.