CIRCADIAN RHYTHM

LIGHT THAT SUPPORTS HEALTH, BEHAVIOR, AND PERFORMANCE

In correctional and institutional environments, lighting is more than visibility; it directly impacts sleep, behavior, and long-term health. Without access to natural daylight cycles, occupants often experience disrupted circadian rhythms, leading to poor sleep quality, reduced cognitive function, and increased health risks.

Why Circadian Rythmn Matters

The body's circadian rhythm is the internal 24-hour clock that regulates sleep, metabolism, hormone levels, and mental alertness. When properly supported, it helps improve:

- Sleep quality and recovery
- Cognitive performance and focus
- Immune system function
- Metabolic health and weight regulation
- Reduction in long-term health risks

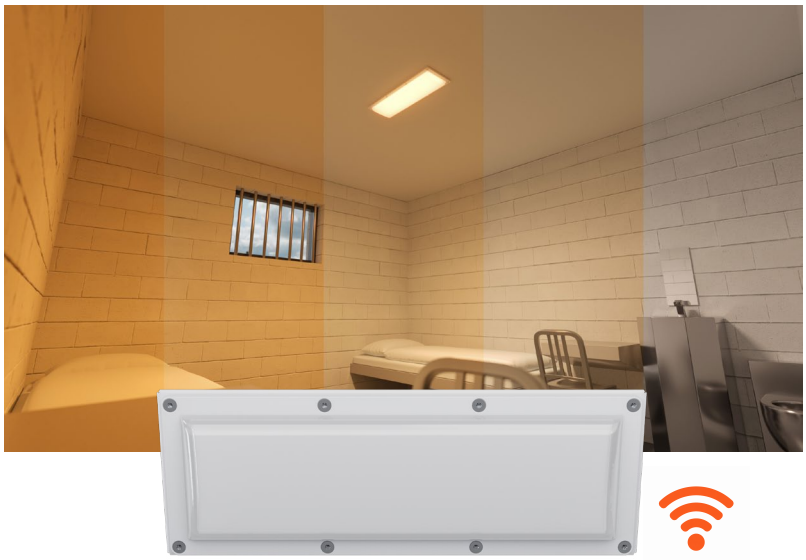
In controlled environments, lighting becomes the primary tool to regulate this biological system.

Melanopic Lighting: Simulating Daylight

Melanopic lighting uses biologically effective light, measured in Melanopic Equivalent Daylight Illuminance (MEDI), to replicate natural daylight patterns indoors.

- **Daytime:** High-intensity, cool light (250+ lux) supports alertness and activity
- **Nighttime:** Lower-intensity, warmer light supports rest and recovery

This structured light cycle helps align the body's natural rhythm, even without access to outdoor environments.



Ironclad® Linear Pro

Better Light. Better Rhythm. Better Outcomes.

With intelligent wireless lighting controls available on select Shat-R-Shield products, fixtures automatically adjust throughout the day to mimic the natural progression of sunlight, helping maintain synchronization with the human circadian rhythm. For decades, Shat-R-Shield has delivered lighting solutions engineered for critical, high-performance environments. Today, that same durability extends beyond performance; supporting lighting strategies that promote human health, stability, and well-being in correctional and institutional spaces.