Corporate Overview

March 2019
Quick Overview

Company

- 100% LED focused
- Over 300 Patents
- LED Pioneer since 2002
- Over 100,000 units shipped
- 25+ Million LEDs
- Complete Supply chain control
- HQ in Portland, Oregon, USA

Worldwide Coverage & Support

ISO 9001 Certified
Phoseon’s Light Technology Mission

Convert Legacy Technology to Solid-State While Enabling New Applications

Phoseon Technology

Higher Performance
Better Control
More Efficient
Better for Environment
Small Footprint

Phoseon Developed and Leads the Market
Value Chain

Phoseon LED Technology Platform

Equipment Manufacturers

END USAGE
Life Sciences
Analytical
Disinfection
Decontamination
Industrial Curing
Printing
Coatings
Adhesives

Changing the Game with LED Solid-state Technology
LED Solutions for Industrial Curing

**UV Adhesives**
- Displays
- Electronics
- Speakers
- Process control
- High Uniformity
- Low heat

**UV Coatings**
- Industrial Filaments & Cables
- Wood
- High Power for high throughput
- Compact/Rugged

**UV Inks**
- Digital Inkjet
- Flexographic
- Screen
- High Performance
- High Dose
- Reliable

Enabling New Capabilities & Processes Worldwide
LED Solutions for Life Sciences

Substantial LED Benefits
- Low heat emission
- High Intensity
- Precise Control

Get ahead of your competition

Broad Applicability

Chromatography
- Solid state light sources for chromatography and spectroscopy instruments

Decontamination
- Innovative light sources to eliminate laboratory contamination in minutes

Disinfection & Sterilization
- LEDs for the disinfection of sensitive surfaces of laboratory or clinic instruments

Building compelling systems for end users in healthcare or research
LED Wavelength

A full spectrum of options, Applied as solutions to specific market needs

- Life Sciences KeyPro™ and KeyView™
- Industrial Curing
- Air-cooled
- Water-cooled

Power Spectrum

Wavelength (\(\lambda\) - nm)

Relative Power

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Phoseon Confidential
TargetCure™ Technology Benefits

**Stable**
Process stability over lifetime of LED system

**Consistent**
Reduced irradiance drift over the operating temperature range

**Precise**
Instant-on to the target irradiance, with no overshoot

Patented & Proprietary
WhisperCure™ Technology Benefits

**Performance**
Maximum irradiance for high-performance applications

**Compliance**
Regulatory compliance without sacrificing performance

**Profitable**
Improved throughput and worker communication

Patented & Proprietary
Differentiated Value
Phoseon-driven Solid-State Conversion

Advanced Capabilities
- Only desired energy
- Instant on/off
- Stable and precise

Operating Economics
- Energy efficient
- Low temperatures
- Long lifetime

Environmental Advantages
- Mercury free
- No waste stream
- Safer workplace

Phoseon LED technology platforms provide un-matched process stability, performance & control
Global Customer Acceptance

Market leaders all working with Phoseon technology platforms
Company Expertise

Solid-State and Optical Expertise  Continual Engineering Leadership  8x Performance Increase Since 2006

Time to Market in Weeks  Over 300 Patents Worldwide

Reliability
Phoseon Manufacturing

Sourcing
- Global Supply Chain
- Technical Expertise
- Rigid Qualifications

Manufacturing
- Scalable Production Capacity
- Clean-room Environment
- Precision Automation

Testing
- Multi-Stage Test
- Recalibration
- Packaging

100% dedicated LED solutions
Phoseon Reliability Engineering

Ensuring years of safe & reliable service by significant investments in pre-shipment product testing

Highly Accelerated Life Test

-70°C to +150°C in 3 min
Random 6-axis vibration testing

Environmental Chamber

-10°C to +80°C
Relative Humidity: 10% → 90%

Lifetime

Semiconductor Quality
Pre- and post-ship Lifetime

70,000+ hours of actual product mortality tested (8 Years)
Phoseon’s Advantages

Company
- Thermal Management
- Internal Manufacturing
- In-house R&D
- Custom Optics

Products
- Optimized Performance
- Rugged & Reliable
- Extensive Portfolio
- Long Lifetime

Solutions
- Patented Technologies
- Application Specific Engineering Services
- Scalable Lengths

100% LED Focused

Base LED Benefits
- Advanced Capabilities
- Operating Economics
- Environmental Advantages