



## LumiFree LED Free Lighting New Product Announcement

Japan Display Inc. October 31, 2022





## LumiFree LED Free Lighting New Product Announcement

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## METAGROWTH 2026 Growth Strategy

Chairman & CEO Scott Callon



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## METAGROWTH 2026





## **META**

## "Comprehensive, Overarching" Underscores JDI's Commitment to Transformational Growth

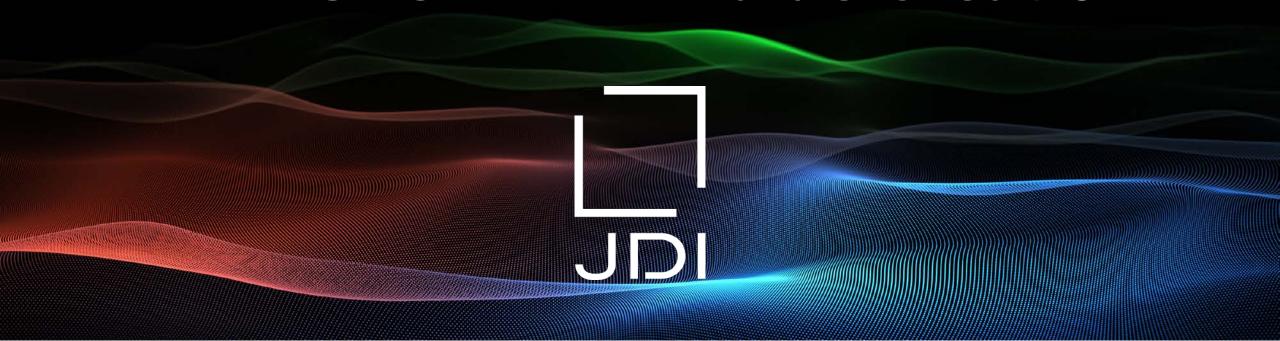
**Metaverse Also a JDI Growth Driver** 



## **Core Strategy**

Global No. 1 Technology Leadership to Best Serve Customers and Deliver PersonalTech For A Better World

METAGROWTH in Value Creation







JDI's Six Proprietary Growth Drivers



Value

Customer

#### **JDI's Six Proprietary Growth Drivers**



## JDI's six proprietary growth drivers are all <u>Global No.1</u> technologies that provide significant customer value & drastically improve JDI's profitability

#### eLEAP (NextGen OLED)

- High brightness, long life, & high resolution while supporting a wide range of shapes & sizes
- Environment positive GreenTech with superior cost performance



## HMO (High Mobility Oxide)

- Backplane technology with ultra-low power consumption, high resolution, & large display size capability
- Foundational technology for G8 & G10 fabs



#### Metaverse (Ultra High Resolution)

- Unparalleled sense of reality & immersion
- High yields & outstanding quality



eLEAP



#### **JDI's Six Proprietary Growth Drivers**



## JDI's six proprietary growth drivers are all <u>Global No.1</u> technologies that provide significant customer value & drastically improve JDI's profitability

#### AutoTech

- EV-focused, best-in-class integrated cockpit development
- HUD development driving safety improvements



## Rælclear (Transparent Interfaces)

- World's highest transparency
- Social contribution by enabling more interactive & inclusive communication



## New Tech, Products, & Businesses

- Expand applications of JDI proprietary technologies
- New businesses that address important social needs



**HMO** 



#### **LumiFree Underscores JDI's Commitment to METAGROWTH 2026**

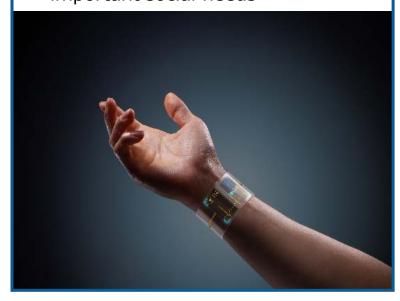


#### LumiFree is the world's first LED Free Lighting technology

Developed by an internal JDI start-up, it is the foundation for a new JDI business built upon JDI's deep expertise in advanced frontplane & backplane display technologies

## New Tech, Products, & Businesses

- Expand applications of JDI proprietary technologies
- New businesses that address important social needs





Revolutionary GreenTech to freely & flexibly tailor light to diverse needs, reduce energy consumption & light pollution, & contribute to a more sustainable world







**LumiFree Technology & Product Introduction** 



## Freedom For Light, Beauty For The World





## **LED Lighting Market Environment**



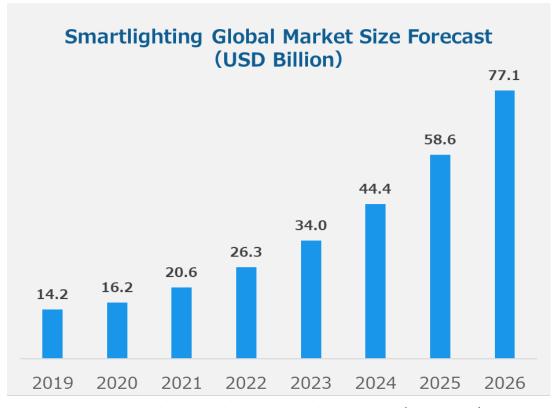
## Changes in external environment driving <u>Light Control</u> needs Increased demand for Smart Lighting to address negative externalities of industrialization

Increased environmental awareness -> Global CO2 reduction targets

Covid-linked lifestyle changes
-> Need for improved indoor
health, safety, comfort, design,
& aesthetics

Increased light pollution -> Negative impacts on ecosystems & biodiversity

Growing demand for Smart Lighting solutions to address Environmental & Wellness needs



By Modor Intelligence , Global Smart Lighting Market (2021-2026)

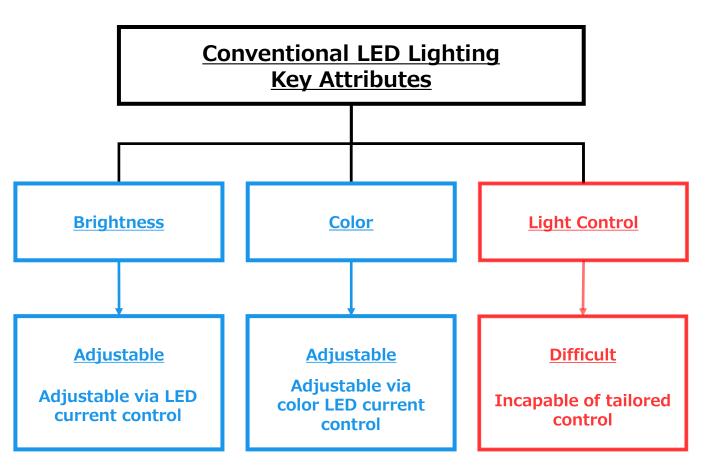


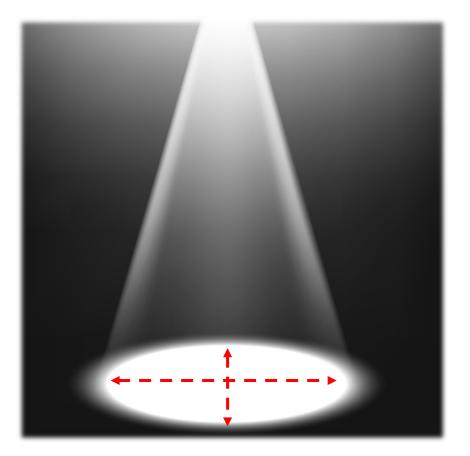
## **Conventional LED Lighting**



Conventional LED technology has difficulty controlling light amount, shape, size, & direction after manufacturing & installation

This has created a mismatch between manufacturers' products & users' needs







#### **Lighting Industry Mismatch**



#### Issues in <u>Product Structure</u> of LED Lighting

Light control is generated by lenses and reflectors.

New molds must be made for each new product,
ruling out small-scale production of tailored lighting
for diverse needs.

In addition, complex inventory & production management for broad, tailored product portfolios reduces operational & production efficiency.

#### Issues in <u>Installation & Use</u> of LED Lighting

Societal & environment changes have led to calls for reductions in CO2 emissions and countermeasures against light pollution.

Lighting optimized for the use purpose & installation environment is required, and lighting should be tailored to and fully accommodate diverse needs.

#### Manufacturers

Free & flexible light control Increased operational efficiency Increased production efficiency JDI

LumiFree resolves mismatch

#### Users

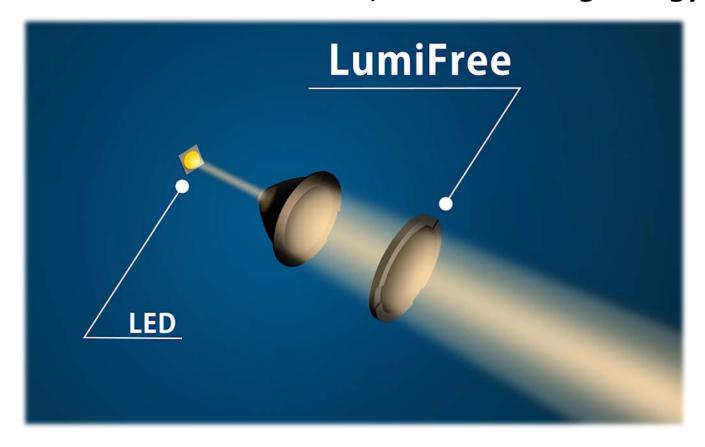
Free & flexible light control
Increased energy efficiency
Increased value of spaces,
environments, & assets where
lighting is deployed

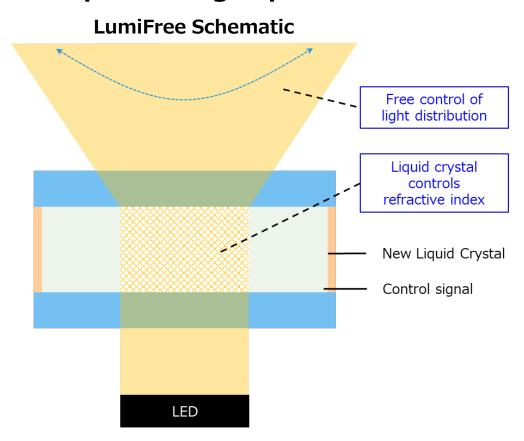


#### **About LumiFree (1)**



JDI developed LumiFree to address important societal & user needs
LumiFree allows for fully free & flexible control of light to improve how we
experience illumination of people, places, & things and tailor to diverse user needs
& environments, while reducing energy consumption & light pollution







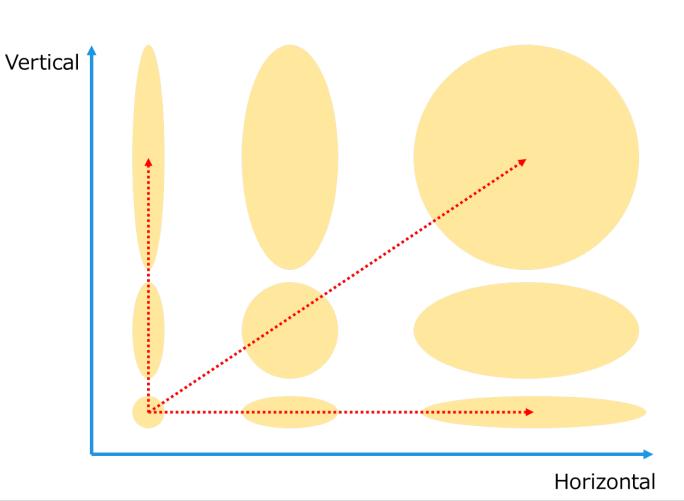
#### **About LumiFree (2)**



## LumiFree allows for fine control of light in two axes (vertical and horizontal), enabling lighting to be optimized & tailored to diverse user needs & environments



**LumiFree App** 

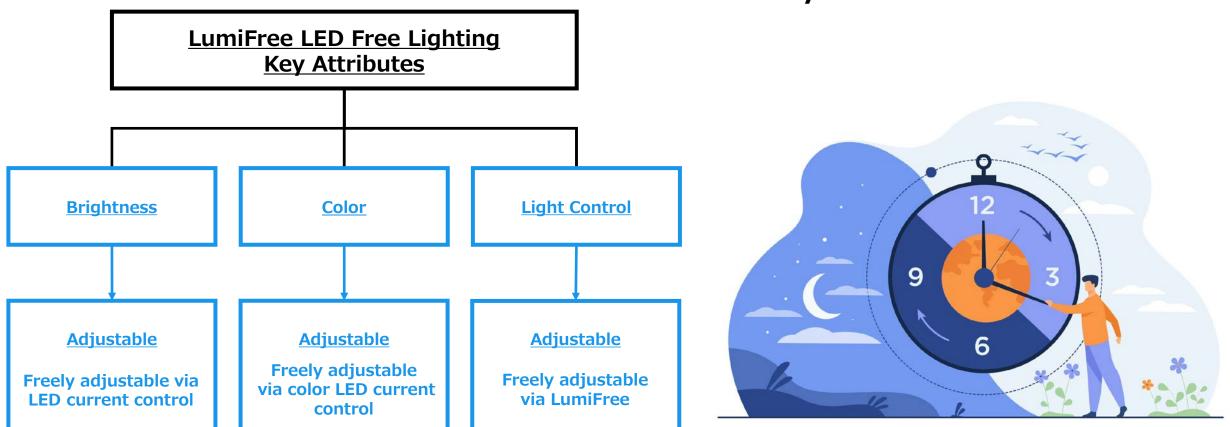




## **LumiFree's Lighting Revolution – The Right Light**



LumiFree's free & flexible control of light allows us to choose the exact amount, shape, & location of light that best fits the needs of users, spaces, & environments, while reducing energy consumption & light pollution to support the achievement of a more sustainable society

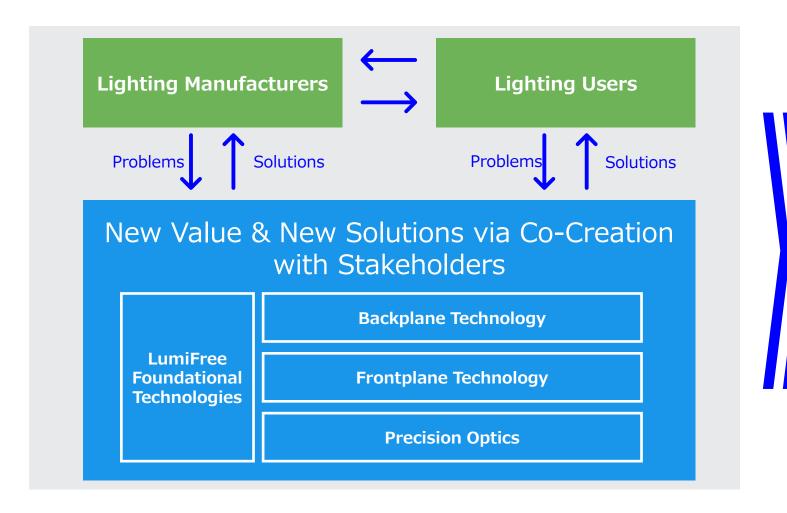




#### **LumiFree's Value Creation Process**



## Through open & collaborative creation with all stakeholders, we are working to create new value & a better future





Target Business Size

Phase 1: Bring LumiFree into the World

Create a new industry with the Value of Light at its foundation

Phase 2: Business Expansion KPI: > JPY 10 billion sales

Contribute to a more sustainable society – create indispensable solutions that serve all stakeholders

FY23 ~ FY24

FY25 ~



## PersonalTech For A Better World