

NextLite

An Authorized **JALITE** Dealer



A brief history of photoluminescence and Jalite.



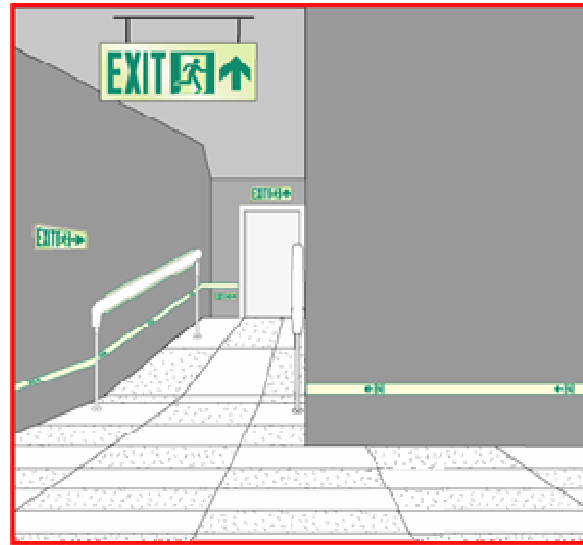
Installed on 7 continents with photoluminescent systems tailored for educational, commercial, residential, marine, and transportation

Photoluminescent Safety Markings



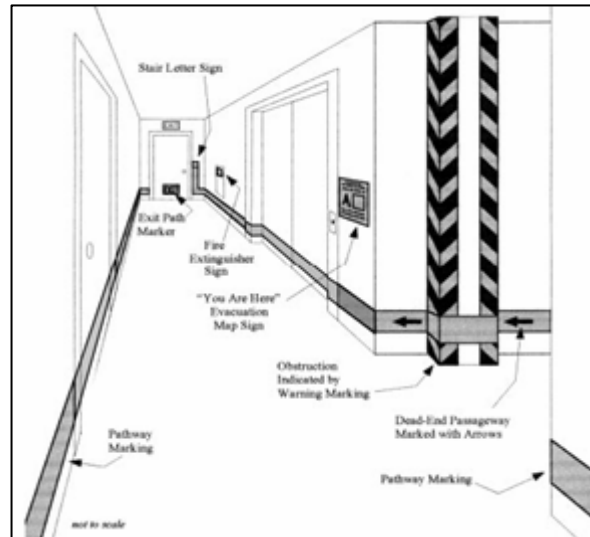
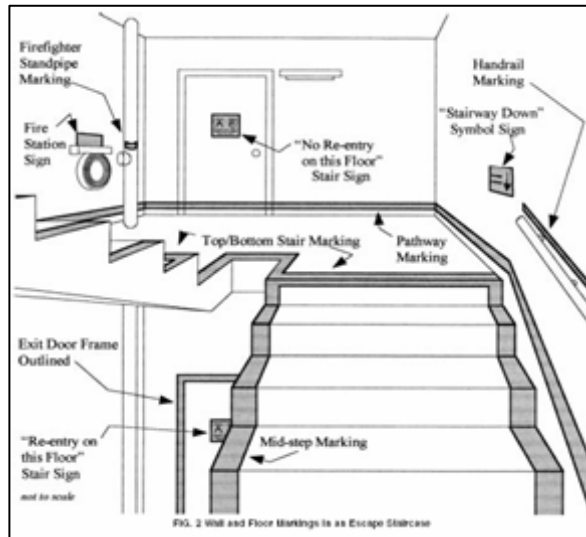
- After the 1993 bombing where people took up to 4 hours to evacuate in the dark, the World Trade Center installed photoluminescent markings in the stairwells (1994-1996)

Photoluminescent Safety Markings



- In 1995 ISO TC 145 begins work on the development of a standard for egress path marking systems in buildings
- In 2004 ISO 16069 *Safety Way Guidance Systems* completed (electrical and non-electrical components)

Photoluminescent Safety Markings



- In 2000, ASTM finishes *E 2072 Standard Specification for Photoluminescent (Phosphorescent) Safety Markings*
- In 2002, ASTM finishes *E 2073 Standard Test Method for the Photopic Luminance of Photoluminescent (Phosphorescent) Markings*
- In 2002, ASTM finishes *E 2030 Guide for Recommended Uses of Photoluminescent (Phosphorescent) Safety Markings*

Photoluminescent Safety Markings



- In 2001 UL accepts photoluminescent EXIT signs into UL 924 *Emergency Lighting and Power Equipment*
- The signs meet the visibility test criteria after 90 minutes in dark conditions



Standards Development is Key

- **Jalite is a member of every code/standard committee for photoluminescent safety markings**

International

- ISO / IMO Shipboard & Marine signage standards
- ISO/TC 145 Safety signs and markings



United States

- ASTM Materials and testing standards
- NFPA 101 Life Safety Code & NFPA 170 Standard for Fire and Emergency Symbols
- ANSI/OSHA Safety Colors & Sign standards
- UL 924 and 1994 STP committees



Jalite History

- 30 years in the business
- JaliteAsia and JaliteUSA provide world-wide presence.
- Active participation in creation of worldwide standards
- JaliteUSA only manufacturer on NYC Department of Buildings taskforce for LL26
 - First MEA approved material
 - Launches JaliteUSA as leader in market

PHOTOLUMINESCENCE 101

- What it is not
- What it is
- How it works
- It's Benefits
- How it's Used

Photoluminescent Material

What it is not

Not to be compared with novelty items



- Chemical reaction
- One time use



- Zinc sulfide
- Rapid charge/discharge

Photoluminescent Material

What it is



- “Photoluminescent” material has the ability to absorb and store energy. It will immediately begin to emit that energy in the form of light when the lights go out.
- In 1995 Nemoto and Honeywell develop & patented a new PL pigment with higher brightness and longer lasting characteristics than competitors PL pigments
 - *Strontium Aluminate (key component)*

Photoluminescent Material

How it works

The most frequently asked question:

Q. “How long does it remain visible?”

A. With 5 foot-candle external illumination it will far exceed UL’s 90 minute time requirement. Once fully charged it will continue to emit light for approximately 24 hours.

- Determining factors

- The type of light charging the material
- Amount of light (measured in lux or foot candles)
- Length of time the material has been exposed to a charging source

- Rule of thumb:

- “The more light IN – the more light OUT”

Photoluminescent Material

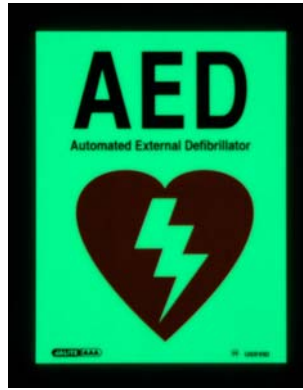
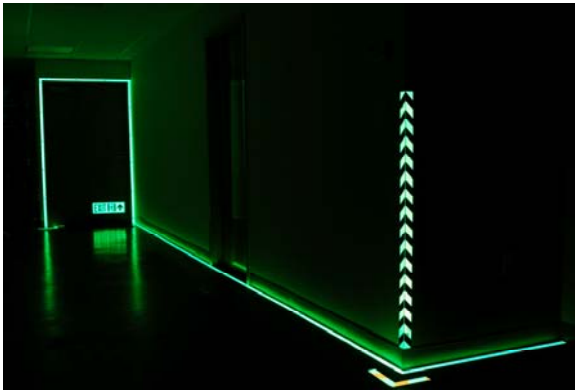
Benefits

- Communicates information in the dark
 - Clearly identifies the escape route
 - Increases visibility of steps in panic situations
- Reliability
 - Truly “Fail-Safe”
 - 25 year warrantee
- Code Compliant
 - UL 924, NFPA Life Safety Code 101, IBC
- Little maintenance & easy to install
 - No electrician need to install
 - No generator to maintain
 - No bulbs to change, no battery to test (UL Exit Sign)
- Fiscally and environmentally sound investment
 - Reduction of 6,000 lbs of carbon emissions per sign annually
 - Reduction of 3,500 kWh per sign annually



Photoluminescent Material

How it is used



- Safety Way Guidance Systems
 - A comprehensive system using a combination of signs and markers to assist in the safe evacuation of the occupants of a facility, craft or other structure.
- Equipment Signs



Safety Way Guidance Systems



- Signs
 - Use symbols and/or text to convey a specific message.
- Markers
 - Use strips to delineate the way to safety and identify obstructions



Equipment Signs

Equipment Identification

- Fire extinguisher/hose
- Fire Alarm
- AED
- Breathing Apparatus



Applications

- Facilities
 - Office buildings
 - Education
 - Theatres, stadiums
 - Hospitality
 - Healthcare



UL-LISTED PHOTOLUMINESCENT EXIT SIGNS

ANNUAL OPERATING COST: \$0

YOUR FIRST COST IS YOUR ONLY COST!

- No Electricity used - ever.
- No bulbs or batteries needed - ever
- No special wiring required - ever.
- No backup power system needed -eve

100% Reliable

- Illuminates the instant a room goes dark.
- Recharges automatically when power is restored.
- Installed properly, 100% fail-safe.

100% Safe

- Made with inert raw materials.
- No radioactive materials.
- No electrical parts.
- No carbon emissions.

Installs Easily

- No electrician needed.
- Anyone can do it.
- Need a screwdriver, drill and ladder

Exits Identified Clearly

- Ultra-bright E-X-I-T grabs attention.
- Leads people to exit door.

Architectural Design

- Professional look and feel.
- Perfect for any application.
- Choose aluminum or framed PVC.

25-Year Warranty



Positive Legend



Negative Legend



Field Applied Chevrons



innovative solutions by:

NextLite

(216) 297-6434

An Authorized **JALITE** Dealer

Products that earn the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.
www.energystar.gov



CHANGE FOR THE
 BETTER WITH
 ENERGY STAR

Life Cycle Cost Estimate for 10 ENERGY STAR Qualified Exit Sign(s)

This energy savings calculator was developed by the U.S. EPA and U.S. DOE and is provided for estimating purposes only. Actual energy savings may vary based on use and other factors.

Enter your own values in the gray boxes or use our default values.

Number of units

10

Electricity Rate (\$/kWh)

\$0.110

ENERGY STAR Qualified Unit

Conventional Unit

Choose the type of ENERGY STAR qualified exit sign(s)

Photoluminescent

Incandescent

Initial cost per unit (estimated retail price)

\$72

\$0

Sign Wattage

0

40

Number of lamps per sign

0

2

Number of replacements per lamp per year

0

2

Cost per replacement lamp

\$0.00

\$3.93

Products that earn the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.
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**CHANGE FOR THE
BETTER WITH
ENERGY STAR**

Annual and Life Cycle Costs and Savings for 10 Exit Sign(s)

	10 ENERGY STAR Qualified Unit(s)	10 Conventional Unit(s)	Savings with ENERGY STAR
<u>Annual Operating Costs*</u>			
Energy cost	\$0	\$385	\$385
Maintenance cost	\$0	\$277	\$277
Total	\$0	\$663	\$663
<u>Life Cycle Costs*</u>			
Operating cost (energy and maintenance)	\$0	\$5,375	\$5,375
Purchase price for 10 unit(s)	\$720	\$0	-\$720
Total	\$720	\$5,375	\$4,655
Simple payback of initial additional cost (years) [†]			1.1

* Annual costs exclude the initial purchase price. All costs, except initial cost, are discounted over the products' lifetime using a real discount rate of 4%. See "Assumptions" to change factors including the discount rate.

[†] A simple payback period of zero years means that the payback is immediate.

Products that earn the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.

www.energystar.gov



**CHANGE FOR THE
BETTER WITH
ENERGY STAR**

Summary of Benefits for 10 Exit Sign(s)

Initial cost difference	\$720
Life cycle savings	\$5,375
Net life cycle savings (life cycle savings - additional cost)	\$4,655
Simple payback of additional cost (years)	1.1
Life cycle energy saved (kWh)	35,040
Life cycle air pollution reduction (lbs of CO ₂)	53,786
Air pollution reduction equivalence (number of cars removed from the road for a year)	4.69
Air pollution reduction equivalence (acres of forest)	6.67
Savings as a percent of retail price	646%