ASTM Standards for Photoluminescence

Presented by:
Marina Batzke
ASTM E12.13 Committee Chairperson
American PERMALIGHT, Inc.

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If there are NO Standards
it leads to unsubstantiated claims

“8 hour glow-in-the-dark”
ASTM International

• American Society for Testing & Materials

• voluntary standards development organization

• Producers, users, consumers, government and academia participate in standards writing.

• www.astm.org
ASTM E2030-08

- Standard **Guide for Recommended Uses of Photoluminescent (Phosphorescent) Safety Markings**
- 2008 version is the latest edition.
- describes recommended uses and information on installation of photoluminescent safety markings in text and with graphics
ASTM E2072-04

- Standard **Specification for Photoluminescent (Phosphorescent) Safety Markings**

- **2004** version is the latest edition.

- sets minimum photometric requirements for newly applied photoluminescent safety materials
ASTM E2073-07

• Standard **Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings**

• **2007** version is the latest edition.

• **To assess how photoluminescent markings perform under identical test conditions**
After the 1993 first WTC Attack:

Photoluminescent Epoxy Paint 84-0385 applied to steps and handrail.
NYC Local Law 26   RS6-1 in 2005 / 2006
2009 IBC / 2009 IFC

• require photoluminescent Exit Path Markings in **NEW** and **EXISTING** construction 75 feet or taller

• Group A, B, E, I, M and R-1

• Materials to comply with either/or:
  – **UL1994** Luminous Egress Path Marking Systems
  – **ASTM E2072** with special amendments
UL1994 requirements

• **Illumination**  1 foot-candle = 10.8 Lux
  Fluorescent Lighting for 60 minutes

• Material tested after 90 minutes in the dark:
  3 observers have to be able to **100%** see
  3 identical, pre-conditioned samples
  at 25 feet viewing distance
IBC/IFC amended **ASTM requirements**

- **Illumination**: 1 foot-candle = 10.8 Lux
  - Fluorescent Lighting for 60 minutes

- **Required Luminance**:  
  - 30 milli candela per square meter at 10 min  
  - 5 mcd/m² at 90 minutes
2009 IBC / 2009 IFC

- Stairs, Handrails, Floor Landings, Exit Doors, Signage, Obstacles to be marked

✓ Non-radioactive
✓ LEED qualifier
✓ Non-electrical
✓ Energy-efficient
Obstacles marked
Door Frame outlined

Door Handle Backing

Panic Bar Marking Strip
Perimeter Outlining
Questions? Please contact:
Marina Batzke
ASTM E12.13 Committee Chairperson

Toll Free 888-737-6254
www.americanpermalight.com

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