

SECTION 10 1443

PHOTOLUMINESCENT EXIT PATH MARKING SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Photoluminescent exit path marking system along with supplementary items necessary for installation of the following:
 - 1. Stair and leading edge nosing
 - 2. Handrail illumination strips
 - 3. Demarcation way finding strips
 - 4. Obstacle markers
 - 5. Door signage and directional signage
 - 6. Floor Level I.D. Sign

1.2 ACTION SUBMITTALS

- A. Product Data: Manufacturer's technical literature for each product and system indicated.
 - 1. Include manufacturer's specifications for materials, finishes, construction details, installation instructions, and recommendations for maintenance.
- B. Samples: 6in. long samples of each item specified.

1.3 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Written reports based on evaluation of comprehensive tests performed by qualified testing agency indicating that each product complies with requirements.
- B. Qualification Data:
 - 1. For firms and persons specified in "Quality Assurance" to demonstrate their capabilities and experience. Include list of completed projects.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Experience: Installer's personnel with not less than 2 years of experience in the successful performance of Work similar to scope of this Project.
 - 2. Supervision: Installer shall maintain a competent supervisor at Project while the Work is in progress, and who has not less than 2 years of experience installing products and systems similar to scope of this Project.
 - 3. Install Photoluminescent egress path marking and signs in accordance with manufacturer's instructions and approved shop drawings.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Where products and systems are indicated to fit walls and other construction, verify dimensions by field measurements before fabrication.

1.6 COORDINATION

- A. Coordinate installation of products and systems with interfacing and adjoining construction to provide a successful installation without failure.

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1.7 WARRANTY

- A. Manufacturer's Warranty: Furnish manufacturer's written material and labor warranty signed by an authorized representative using manufacturer's standard form agreeing to furnish materials and labor required to repair or replace work which exhibits material defects caused by manufacture or design of product. "Defects" are defined to include but not limited to deterioration or failure to perform as required.
 - 1. Warranty Period: Manufacturer shall warrant the products to be free from material and labor Defects for a period of 5 years from date of Substantial Completion and that the photoluminescent pigment and glow properties will continue to charge and emit glow with less than a 5 percent loss of light output over a 25 year period.

PART 2 - PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

- A. Acceptable Manufacturers: Subject to compliance with requirements of Contract Documents as judged by the Architect, provide product by one of manufacturers listed. If not listed, submit as substitution according to the Conditions of the Contract and Division 01 Section "Substitution Procedures".
 - 1. GBC Safety Glow

2.2 PERFORMANCE REQUIREMENTS

- A. General: Meet or exceed the following performance standards and criteria and in accordance with applicable building codes and acceptable to the authority having jurisdiction and to Architect.
 - 1. IBC/IFC Regulations
 - 2. UL 1994: Pass.

2.3 MATERIAL

- A. Single Source Responsibility: Furnish each type of product from single manufacturer. Provide secondary materials only as recommended by manufacturer of primary materials.

2.4 PHOTOLUMINESCENT EXIT PATH MARKING SYSTEM COMPONENTS

- A. Leading Edge Nosing
 - 1. Surface-mounted nosing with 1/2 in (25 mm) wide photoluminescent glow, fluted surface and 1" wide, abrasive anti-skid strip
- B. Handrail Illumination Strips: 1/2 in wide photoluminescent aluminum strip adhered to handrail with factory approved adhesive.
- C. Demarcation Way Finding Strips: 1/2 in wide rigid plastic photoluminescent strip adhered to wall with factory applied pressure sensitive adhesive or glue where appropriate.
- D. Obstacle Markers: 1 in (25 mm) wide extruded aluminum with a pattern of 2 in (50 mm) photoluminescent strips alternating with 2 in (50 mm) black bands angled at 45 degrees adhered to all obstacles as defined by established building code.

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- E. Running Man: 5"x5" rigid plastic symbols facing right or left to suit installation conditions.
- F. Exit Hardware: 4"x4" Door marker or 1"x16" rigid plastic push bar marker
- G. Floor identification signs: rigid plastic 18"x15" Grade 2 Braille and raised tactile floor number

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Acceptance of Surfaces and Conditions: Examine substrates to receive products and systems and associated work for compliance with requirements and other conditions affecting performance. Proceed only when unsatisfactory conditions have been corrected in a manner complying with Contract Documents. Starting work within a particular area will be construed as acceptance of surface conditions.
- B. Verify that when installed, the photoluminescent surface of all components, including, the handrail illumination system strips and the demarcation way finding strips will have exposure to sufficient activation illumination to ensure the photoluminescent strip will be effectively charged and will meet the required brightness rating.

3.2 INSTALLATION, GENERAL

- A. Installation Quality Standards: In addition to standards listed elsewhere, perform Work according to following, unless otherwise specified:
 - 1. Governing regulations
 - 2. Written manufacturers installation instructions.
 - 3. Accepted submittals.
 - 4. Contract Documents.

3.3 PREPARATION

- A. General: Comply with manufacturer's instructions, recommendations, and specifications for cleaning and surface preparation. Surfaces shall have no defects, contaminants, or errors which would result in poor or potentially defective installation or would cause latent defects in Work.

3.4 INSTALLATION

- A. Stair and Leading Edge Nosing. Rigidly anchor to substrate; install full width of each step and landing edge.
- B. Handrail Illumination Strips: Handrail illumination strips shall be adhered to the handrails in accordance with the established code requirements with the factory approved adhesive.
- C. Demarcation Way Finding Strips: Demarcation way finding strips shall be adhered in accordance with the established code requirements with the factory applied pressure sensitive adhesive. Strips shall be as continuous as practicable with no more than a 4 in (100 mm) gap in the photoluminescent strip.
- D. Obstacle Markings: Obstacle markings shall be adhered to the obstruction in accordance with the established code requirements. Mark all obstacles at or below for 6 ft 6 in (2 m) in height and projecting more than 4" into the egress path.

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- E. Door Hardware: Door hardware shall be marked with no less than 16 sq in (100 square cm) of photoluminescent material and the photoluminescent material shall be located behind, immediately adjacent to, or on the door handle and/or escutcheon. Panic bars shall have a 1 in x 16" (25 mm) photoluminescent. The top and sides of the door frames shall be marked with a solid and continuous 1 in (25 mm) wide photoluminescent strip with a factory applied pressure sensitive adhesive. Install stripe on the wall surrounding the door frame.

END OF SECTION