



Section 26 53 00

Ecoglo Photoluminescent UL 924 Exit Signs

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Section 26 53 00

Photoluminescent UL 924 Exit Signs

Part 1 General

1.1 Summary

- A Work Included: Supply and installation of photoluminescent exit signs.

1.2 References

- A [National Fire Protection Association (NFPA) 101 - Life Safety Code]  
[International Building Code / International Fire Code (IBC/IFC)]
- B UL 924, Standard for Emergency Lighting and Power Equipment

1.3 Design Requirements

- A Illumination: Where photoluminescent exit signs are installed, they shall be provided with not less than 54 lux of illumination for not less than 60 minutes prior to periods when the building is occupied, and continuously during the building occupancy.

1.4 Quality Assurance

- A Manufacturer Qualifications: to have a minimum of 25 years' experience manufacturing photoluminescent materials.

1.5 Submittals

Submit the following [in accordance with Section 01 33 00 – Submittal Procedures]:

- 1 Product Data: Manufacturer's printed product data sheets for materials used in system.
- 2 Shop Drawings: Provide drawings showing details, dimensions, extent of work, and other data necessary for the satisfactory installation of the products stated herein.
- 3 Manufacturer's Instructions: Pre-printed material describing installation of product, system or material, including special notices, Safety Data Sheets outlining hazards and safety precautions and maintenance and cleaning instructions.
- 4 Test Reports: Showing compliance with required standards, ordinances and codes.
- 5 Substitutions: Not permitted, however requests for substitutions will be considered provided substitute products and methods of execution are submitted at least 15 days prior to the bid closing date. All requests shall include test results, product descriptions, confirmation of piece design and engineering calculations meeting design criteria.

1.6 Delivery, Storage and Handling

- A Handle and store Products in a manner to prevent damage,

deterioration and soiling to Products, other building components, assemblies, other Products, the structure, the Site and surrounding property and in accordance with manufacturer's instructions.

- B Store packaged or bundled Products in original and undamaged containers and packaging with manufacturer's seals and labels intact. Do not remove from packaging or containers until ready to be installed
  - C Store products subject to damage from weather in weatherproof enclosures.
- 1.7 Warranty
- A Provide manufacturer's limited warranty.
    - 1 30 Year Warranty on photoluminescent performance of HTC Signs when positioned indoors.

## Part 2 Products

### 2.1 Manufacturers

- A Contract Documents are based on products by Ecoglo International Ltd ([www.ecoglo.com](http://www.ecoglo.com))
- B Substitutions: [Under provisions of Division 01.] [Not permitted.]

### 2.2 Materials

- A Photoluminescent pigment embedded in thermoset polyester manufactured using a High Temperature Manufacturing (HTC) process at a temperature exceeding 160°C to integrally bond the active ingredients to 5005 0.9mm aluminium (aluminum) sheet.
- B All HTC Signs to meet or exceed the performance criteria specified in the following tests or standards.  
PC = Performance Criteria
  - a. UV Resistance  
ASTM G155-04 Cycle 1 1000hrs, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials. PC – Loss in luminance after exposure < 10%
  - b. Salt Spray Resistance  
ASTM B117-97, Standard Practice for Operating Salt Spray (Fog) Apparatus. PC – Slight corrosion build up along scribes, no blistering or filiform growth along scribes.
  - c. Washability  
ASTM D4828-94 (2003), Standard Test Methods for Practical Washability of Organic Coatings. PC – crayon, pen, 3M soil: all rating 10, being complete removal of soilant.
  - d. Rate of Burning  
ASTM D635-03, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position. PC – Time of burn 0 seconds, does not burn.
  - e. Surface Flammability

ASTM E162-02, Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source. PC – Flame spread index 7.6, ignites with difficulty.

f. Toxicity

Bombardier Toxic Gas Generation Test SMP800-C. PC – Pass.

g. Radioactivity

ASTM D3648-2004, Standard Practices for the Measurement of Radioactivity. PC – Pass.

h. Visibility

UL 924 Standard for Exit Signs, Emergency Lighting, and Power Equipment. PC – Pass.

i. High Temperature Curing

Independently tested by placing 3 samples in an oven at 150°C for 20 minutes and then examining the samples after removing from the oven. PC – the samples shall have no shrinkage, delamination, distortion, or yellowing.

- C Frame and mounting components: 6060T5 aluminium (aluminum) clear anodized to Class 1, .0007” (20 microns) thickness.

## 2.3 Components

- A Basis of design: Ecoglo UL 924 Photoluminescent Exit Signs
- 1 Description:
- a. Stores energy from ambient fluorescent, metal halide or mercury vapor light
  - b. Non-toxic, non-radioactive
  - c. UL 924 Listed
  - d. [Aluminium ceiling or flag mounting kit]
- B Visibility rating: [50 feet] [75 feet]  
As per Schedule attached at end of Section] [As indicated in drawings]
- C Mounting type: [Ceiling] [Flag] [Surface]  
[As per Schedule attached at end of Section] [As indicated in drawings]

[Click here](#) to view Ecoglo Exit Signs

*SPEC NOTE: The listed data included below provide product information for comparison purposes.*

<b>Product Code</b>	<b>Product Name</b>	<b>Sign Size</b>	<b>Maximum Viewing Distance</b>
S20-UL-EX353183-50	Exit	353mm x 183mm	50 feet (15.24m)
S20-UL-EX481249-75	Exit	481mm x 249mm	75 feet (22.86m)
S20-UL-EXR353183-50	Exit Right	353mm x 183mm	50 feet (15.24m)
S20-UL-EXR481249-75	Exit Right	481mm x 249mm	75 feet (22.86m)
S20-UL-EXL353183-50	Exit Left	353mm x 183mm	50 feet (15.24m)
S20-UL-EXL481249-75	Exit Left	481mm x 249mm	75 feet (22.86m)
S20-UL-EXRL353183-50	Exit Double Arrow	353mm x 183mm	50 feet (15.24m)
S20-UL-EXRL481249-75	Exit Double Arrow	481mm x 249mm	75 feet (22.86m)
S20-UL-RMR392223-50	Pictogram Right Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMR480280-75	Pictogram Right Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RML392223-50	Pictogram Left Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RML480280-75	Pictogram Left Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RMUA392223-50	Pictogram Up Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMUA480280-75	Pictogram Up Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RMDA392223-50	Pictogram Down Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMDA480280-75	Pictogram Down Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RMUR392223-50	Pictogram Up Right Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMUR480280-75	Pictogram Up Right Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RMDR392223-50	Pictogram Down Right Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMDR480280-75	Pictogram Down Right Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RMUL392223-50	Pictogram Up Left Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMUL480280-75	Pictogram Up Left Arrow	480mm x 280mm	75 feet (22.86m)
S20-UL-RMDL392223-50	Pictogram Down Left Arrow	392mm x 223mm	50 feet (15.24m)
S20-UL-RMDL480280-75	Pictogram Down Left Arrow	480mm x 280mm	75 feet (22.86m)

### Part 3 Execution

#### 3.1 Examination

- A Before installation, examine surfaces on which the Work of this Section depends. Notify [Contractor] if surfaces do not comply with requirements of this Section.
- B Do not proceed with Work of this Section until all unsatisfactory conditions have been corrected, if any.
- C Commencement of Work will imply acceptance of surfaces.

#### 3.2 Preparation

- A Clean surfaces to remove debris, dirt, dust, grease, oil, loose material, or other matter that may affect installation of photoluminescent products.

### 3.3 Installation

- A Install Signs [as per Schedule attached at end of Section] [as indicated in Drawings].
- B Unless otherwise indicated in the specifications, install Signs in accordance with manufacturer's instructions. Obtain written instructions directly from manufacturer.

### 3.4 Cleaning

- A At completion of installation, clean soiled Sign surfaces in accordance with manufacturer's instructions.

### 3.5 Waste Management and Disposal

- A Separate waste materials for [reuse] [and] [recycling] at nearest used building materials facility.

### 3.6 Protection

- A Do not allow heavy objects to come into contact with installed Signs.

### 3.7 Signage Schedule

*Specification articles (product selections) contained within square brackets [ ] are shown as example choices only.*

<b>Sign Designation</b>	<b>Product Code</b>	<b>Mounting Brackets</b>
[Sign designation on drawing]	[S20-UL-RML480280-75]	[Flag]
[Sign designation on drawing]	[S20-UL-RMDA392223-50]	[Surface]

End of Section