

**SPECIFICATION
FOR
PROJECTORS, OVERHEAD**

(This specification is released for procurement purposes until revised or rescinded.)

SCOPE

This specification covers overhead projection equipment. It is not meant to include all varieties of overhead projection equipment which may be commercially available, but is intended to cover only that generally used by state agencies, institutions, and public schools.

I. CLASSIFICATION

This specification defines three types of overhead projectors which are categorized based on operational features.

Type I Standard or Wide Angle Lens for Classroom and Auditorium Use.

- Style 1. 2,000 Lumens (min.)
- Style 2. 3,000 Lumens (min.)
- Style 3. Meets requirements of styles 1 and 2. Unit has high/low switch to determine lumens brightness

Type II Standard Lens (2 or more elements) for Classroom and Auditorium Use.

- Style 1. 4,000 Lumens (min.)
- Style 2. Portable with 4,000 Lumens (min.)
- Style 3. Meets requirements of styles 1 and 2.

Type III High Resolution Lens (3 or more elements) for Classroom, Auditorium, or General Purpose Use.

- Style 1. 5,000 Lumens (min.)
- Style 2. Portable with 5,000 Lumens (min.)
- Style 3. Meets requirements of styles 1 and 2.

II. APPLICABLE STANDARDS

The following documents of use in effect on the date of the Invitation for Bids shall form a part of this specification:

UL Listing

UL 122, Standard for Photographic Equipment

Underwriter's Laboratories, Inc., Publications Stock, 333 Pfingsten Road, Northbrook, IL 60062

III. REQUIREMENTS

A. INFORMATION REQUIRED WITH BID PROPOSAL

Each bidder shall submit with his/her bid, two copies each of information sheets, illustrations, and published specifications on all equipment offered. All data submitted shall be clearly identified and shall provide sufficient product information for a complete review of compliance with bid specifications. Failure to provide above literature may be considered grounds for rejection of bid proposal.

B. GENERAL REQUIREMENTS FOR ALL OVERHEAD PROJECTORS

1. Operate on single phase, 60 Hz, AC power.
2. Have a three wire AC power cord (Min. 8.5')
3. Listed by a NRTL recognized independent third party safety laboratory approved by the North Carolina Building Codes Council, such as Underwriters Laboratories (UL) and ETL.
4. Forced air cooling system.
5. Safety interlock that shuts off power to the lamp when the access cover to the lamp is opened or removed.
6. Safety thermostat that shuts off power to the lamp when the projector exceeds a safe operating temperature.
7. Stage aperture to be a minimum of 10" x 10".
8. Have a high quality fresnel lens with a minimum groove spacing of 50 lines per inch.

C. SPECIFIC REQUIREMENTS

1. **Type I Projectors with Standard or Wide Angle Lens for Classroom and Auditorium Use.**

a) **Style 1.**

- 1) 2,000 Lumens (min.)
- 2) Standard (13" minimum focal length) or Wide Angle (10.5" minimum focal length) Lens
- 3) Single or Dual Lamps with ejectors. Single lamp units must provide spare lamp storage.
- 4) Writing roll attachment available.
- 5) Top or front mounted ON/OFF switch.

b) **Style 2.**

- 1) 3,000 Lumens (min.)
- 2) Standard (13" minimum focal length) or Wide Angle (10.5" minimum focal length) Lens
- 3) Dual Lamp with quick changer and ejectors.
- 4) Writing roll attachment available.
- 5) Top or front mounted ON/OFF switch.

c) **Style 3.**

- 1) Meets requirements of styles 1 and 2.
Unit has high/low switch to determine lumens brightness

2. Type II Projectors with Standard Lens (2 or more elements) for Classroom and Auditorium Use.

a) Style 1.

- 1) 4,000 Lumens (min.)
- 2) Standard (13" minimum focal length) Lens, 2 or more optical elements.
- 3) Dual Lamp with quick changer and ejectors, with an indirect projection system.
- 4) Writing roll attachment available
- 5) Top or front mounted ON/OFF switch

b) Style 2.

- 1) Portable with 4,000 Lumens (min.)
- 2) Standard (13" minimum focal length) Lens, 2 or more optical elements
- 3) Dual Lamp with quick changer and ejectors, with an indirect projection system.
- 4) Projector head to fold down into a reinforced recessed compartment for safety.
- 5) Carrying handle for transporting unit.
- 6) Travel cover available.

d) Style 3.

- 1) Meets requirements of styles 1 and 2.

3. TYPE III Projectors High Resolution Lens (3 or more elements) for Classroom, Auditorium, or General Purpose Use.

a) Style 1.

- 1) 5,000 Lumens (min.)
- 2) High Resolution Lens (11.5" minimum focal length), 3 or more optical elements.
- 3).Indirect Projection system.
- 4) Top or front mounted ON/OFF switch.

b) Style 2.

- 1) Portable with 5,000 Lumens (min.)
- 2) High Resolution Lens (11.5" minimum focal length), 3 or more optical elements.
- 3) Indirect Projection system.
- 4) Projector head to fold down into a reinforced recessed compartment for safety.
- 5) Carrying handle for transporting unit
- 6) Travel cover available.

e) Style 3.

- 1) Meets requirements of styles 1 and 2.

IV. WARRANTY

Projectors furnished under this specification shall be new and shall be guaranteed against defects in materials, workmanship, and performance in accordance with the manufacturer's standard warranty, except that in no event shall such coverage be for less than one (1) year for parts, labor, travel, etc.. Warranty coverage shall begin on the date of acceptance by the ordering agency. Defective units shall be repaired or replaced during the warranty period free of any charge to the State of North Carolina.

V. SERVICE, PARTS, AND MANUALS

- A. One owner's manual shall be included with each machine furnished under this specification.
- B. Contractor shall initiate warranty service within 48 hours after notification by using agency.
- C. Suitable loaner equipment shall be provided, at no cost to the owner, for use during repair periods that exceed 15 days. A repair period shall not exceed 30 days. Loaner equipment shall possess all functional capabilities present in equipment being serviced, but need not be of the same make or model.

VI. DELIVERY

The vendor shall be responsible for the safe delivery of the equipment in individual shipping cartons, suitable for reshipment.

VII. ORDERING DATA

Purchasers should exercise any desired option herein and should specify the following:

- 1. Title, number and date of this specification.
- 2. Type(s) and style(s) of projector(s) desired.