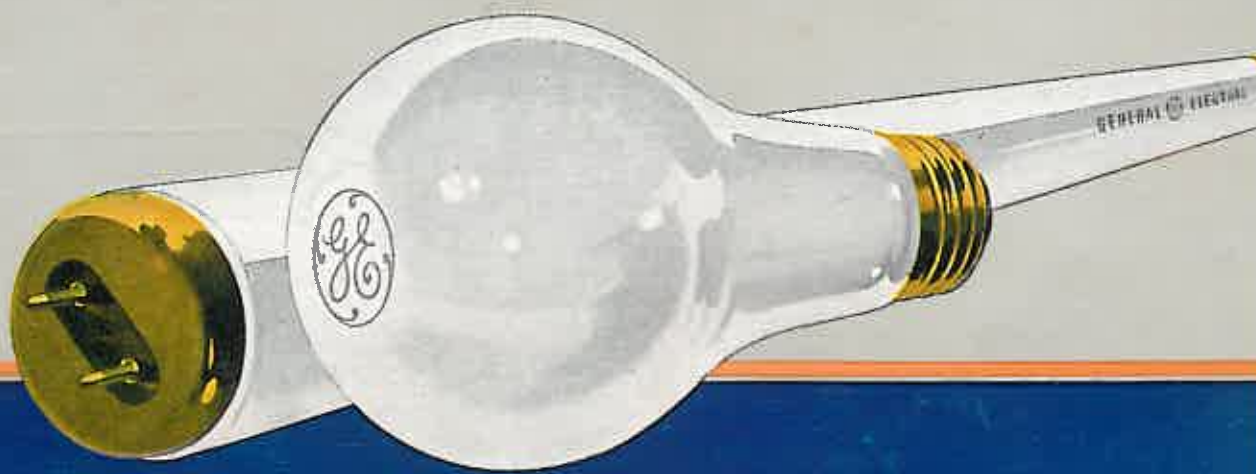


FILAMENT • FLUORESCENT • MERCURY • INFRARED • SUN • GERMICIDAL



LARGE
Lamp
CATALOG



GENERAL  ELECTRIC



*Value in a lamp is a combination of three factors
—efficiency, life and cost. G-E lamps today offer
the greatest value in the history of the industry*

GENERAL  ELECTRIC

Catalog of Large Lamps

1948

FILAMENT LAMPS

FLUORESCENT LAMPS

MERCURY LAMPS

INDUSTRIAL INFRARED LAMPS

INFRARED HEAT LAMPS

BLACKLIGHT LAMPS

SUNLAMPS

GERMICIDAL LAMPS

LAMP DEPARTMENT

GENERAL  ELECTRIC

COMPANY

Foreword

In this catalog are listed types and sizes of General Electric lamps in greatest general demand for services indicated and which, unless otherwise noted are classified as Large Lamps in the manufacturer's schedules and contracts. The principal technical features of each lamp are summarized as an aid to appropriate use.

The few lighting services which require the more than 500 different types and sizes of lamps listed are the most important in point of total demand for large lamps. These do not include lamps classified as Miniature — motor vehicle lamps, flashlight lamps and so forth — Photoflood or Photoflash lamps, or lamps for hundreds of other miscellaneous lighting services whose requirements are comparatively small but whose functions are none the less important, such as: Annunciator, Battery Inspection, Coin Machines, Deep Sea Underwater Floodlight, Electrocardiograph, Fire Alarm Signal, Galvanometer, High Speed Signal, Interferometer, Lighthouse, Miner's Cap, Ophthalmometer, Photophone Recorder, Recording Microphotometer, Surgical, Television, X-Ray Instrument

For a further technical description and additional information on specific usage of any General Electric lamp, reference should be made to General Electric Lamp Bulletin LD-1 and other publications mentioned in the catalog. These, and other assistance you may require, are available from your General Electric Lamp Department Sales District.

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GENERAL ELECTRIC

catalog of large lamps

The list prices in this catalog agree with correct list prices at time of going to press. They are not offered as quotations and are subject to changes without notice.

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Note

Lamps shown in this catalog are one-third actual size except where otherwise indicated. Colored lamps are shown in as close to actual colors as possible. Fluorescent lamps and the Surprise Pink Lumiline lamp are shown in approximately the colors as they appear when lighted.



10,000 DIFFERENT TYPES AND SIZES . . . ONE STANDARD OF QUALITY

To make available more than ten thousand different types and sizes of lamps, each one designed for a specific lighting need, is an achievement from which every individual and every private or public enterprise derives inestimable benefits. But it is not the number of types or the quantities of each that General Electric considers its most important accomplishment in lamp making from the standpoint of service to the public. It is the fact that in every lamp regardless of size or type there is a built-in quality representing the accumulative achievements of over 50 years of research aimed constantly at the one objective *to make lamps that stay brighter longer.*

To design a lamp that during its rated life will give the most light possible from current consumed — then to set up a **manufacturing** technique that assures the same standard of quality for hundreds, thousands or millions of lamps of that same design — and to make the lamps available at the lowest possible cost consistent with established standards of quality — these are notable achievements whose benefits are passed along to the public year after year in the form of tremendous savings in the cost of light and the broader horizons of living made possible by better lamps and better lighting.



2000 to 4000 ANGSTROMS

4000 to 7500

THE SPECTRUM

The spectrum chart shows the range of wavelengths of radiant energy covered by the three groups of lamps mentioned below. While most lamps generate some energy in all three of the regions shown, the amounts vary according to the type and design of the lamps.

LAMPS AS SOURCES OF RADIANT ENERGY

Electric lamps are man-made sources of radiant energy produced at predetermined wavelengths according to the intended function of the lamps. Different wavelengths of radiant energy produce different effects. Wavelengths of radiant energy in the region from approximately 7500 Angstroms to 50,000 Angstroms are emitted as heat. Wavelengths, from approximately 4000 Angstroms to 7500 Angstroms, produce light. Shorter wavelengths in the ultraviolet region have the effect of developing Vitamin D, others kill bacteria and still others have different effects.

ULTRAVIOLET, INFRARED AND VISIBLE LIGHT SOURCES

For many years scientific effort concentrated on the development and improvement of electric lamps designed to produce radiant energy in the form of light. In more recent years lamp research has created new sources and adopted old ones to radiate energy in specific wavelengths or bands beyond the visible spectrum, that is, in the ultraviolet and infrared regions.

General Electric lamps may be grouped accordingly into three classifications.

- (1) Lamps designed primarily to generate and emit radiant energy in the infrared region — Heat lamps and Drying lamps.
- (2) All types of lamps, filament and fluorescent, designed primarily to produce visible light.
- (3) Lamps designed to generate and emit specific ultraviolet radiation — Germicidal lamps, Sunlamps and Black Light lamps.

The Aim of General Electric Research...

Lamp design is the blue print of a lamp's quality. The service a lamp will give and the cost of that service depend to some extent on each one of hundreds of details of its design.

Each individual type of General Electric lamp is designed for a specific lighting application and the conditions under which the lamp will be used. Each detail of design; length, diameter and form of filament, spacing of filament coils; size and shape of bulb; type of base and so forth, is determined from exhaustive experimentation supported by a vast amount of scientific data which General Electric's design experts have accumulated over a great many years.

Successful large scale production of any specific lamp requires setting up a manufacturing procedure that will assure each lamp's conformance with all details of its design. Coordination of design with manufacturing methods is accomplished by a corps of G. E. specialists in lamp manufacturing technique. Their achievements have contributed in large measure to the long record of steadily increased efficiencies and lower prices of General Electric lamps.

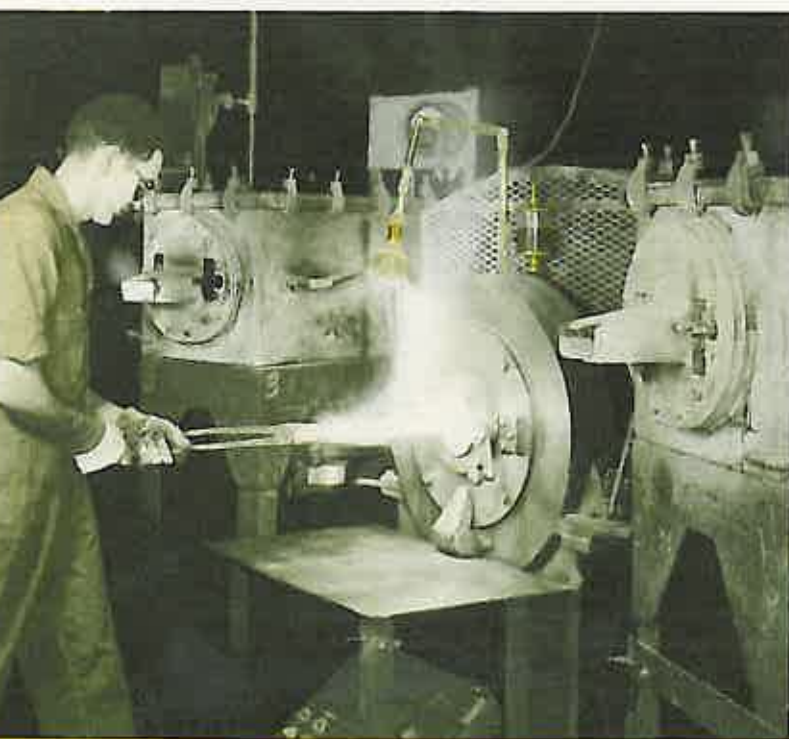
THROUGH CONSTANT RESEARCH AND IMPROVED MANUFACTURING METHODS, EFFICIENCIES OF G-E LAMPS HAVE INCREASED AND PRICES DECREASED STEADILY.



Consistent accuracy of construction details and of such lamp operating factors as wattage, voltage and life ratings is controlled by a system of constant checking and testing at each stage of lamp manufacture. Final tests of finished products are carried on in General Electric's own laboratories and in outside independent testing laboratories.

Thus, through research, technological skill and experience, is accomplished the aim of General Electric to make lamps that stay brighter longer.

MINUTE DETAILS ARE DETERMINING



Beginning the process of transforming thick tungsten rods into fine tungsten wire. This particular rod may be drawn out to make 600 miles of filament wire for 7-watt lamps.

General Electric standards of quality demand rigid precision of detail in lamp design and construction. A few examples will serve to show how minute variances may affect the economic performance of a lamp.

Variation allowed in the diameter of certain lamp filaments is limited to $1/100,000$ of an inch and in filament length to $1/250$ of an inch.

A filament which in one spot is 1% less than the prescribed diameter, may reduce the life of the lamp as much as 25%. A variation of only $1/2$ millimeter in the length of the coil of filament in a 25-watt lamp may cause a variation of as much as 15% in the life of the lamp.

* * * * *

The coils of the filament in a 25-watt lamp are separated by only $2/10,000$ of an inch. Yet they must not touch or life will be affected materially.

One drop of moisture distributed in 500,000 lamps will cause early blackening in all of them.

* * * * *

Variations of more than $1/10,000$ of an inch in the diameter of a mandrel on which filaments are coiled may affect the life of the lamp by as much as 20%.

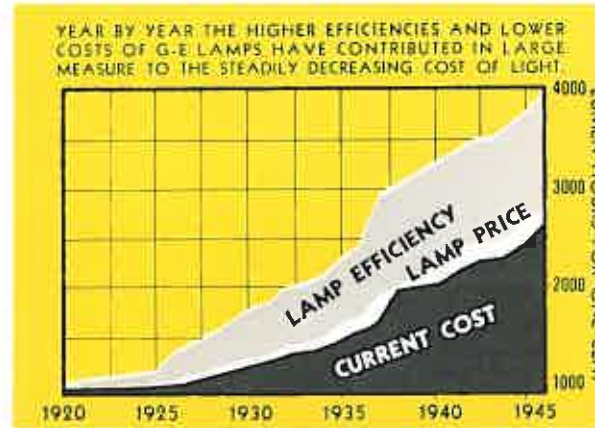
to Make Lamps Stay Brighter Longer

Even a slight variation in lamp quality means a contribution or a loss of many millions of dollars in the annual cost of light to the general public. For most types the meaning of "quality" in a lamp is the degree of efficiency with which the lamp turns electric energy into light over the period of its life. The importance of lamp quality in terms of lighting costs is illustrated by the following example:

A 60-watt lamp costs 11¢ and at a 3¢ per kilowatt hour-rate it consumes \$1.80 worth of current during its life of 1000 hours. If the efficiency or quality of the lamp were increased 10%, the user would get an additional 19¢ worth of light from the lamp which is nearly twice the cost of the lamp itself. This is not just a hypothetical case. It is typical of the savings General Electric lamps have actually affected for the public on many occasions. For instance:

In 1945 the General Electric Company made approximately 100 million 60-watt filament lamps. At retail prices the public paid \$10,000,000 for these lamps. The lamps consumed or will consume about \$180,000,000 worth of current. While they looked the same as those of 10 years before they actually produced 11.2 per cent more light during their life than their predecessors. This 11.2 per cent improved quality on only one size of lamp therefore benefited the public to the amount of \$23,000,000 or more than twice the amount actually paid for the lamps at retail prices.

Quality or efficiency in lamps always pays large dividends in light received per dollar of total expenditure.



FACTORS OF G-E LAMP QUALITY

The vapor pressure in a fluorescent lamp is controlled to one-one hundred-thousandths of normal atmospheric pressure. Specific pressure is essential for high transformance of electrical wats into radiation of a specific wavelength.

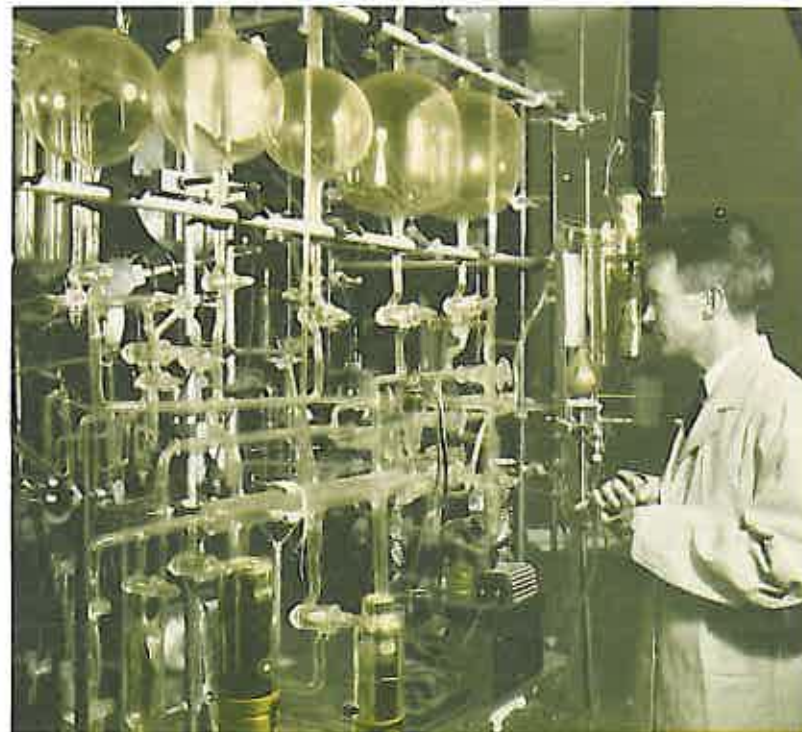
Argon gas used in General Electric lamps must be absolutely dry. Air from which the gas is extracted must be submitted to a temperature of at least 304° below zero.

The phosphor used for coating the inside of a lamp should have its maximum efficiency at the particular wavelengths of ultraviolet generated within the lamps. This is essential to greatest operation efficiency.

* * * * *

Close control of quality during manufacture is carried through by a system of checking and cross checking. 480 tests and checks on quality are made during manufacture from raw materials to finished product. 40 different checks for defects are made on lamp bases alone.

In addition to its own testing facilities, G-E employs the services of an outside testing laboratory to make continuous samplings for inspection of its lamps as manufactured. During a normal year more than 5 million lamps are inspected by this agency.

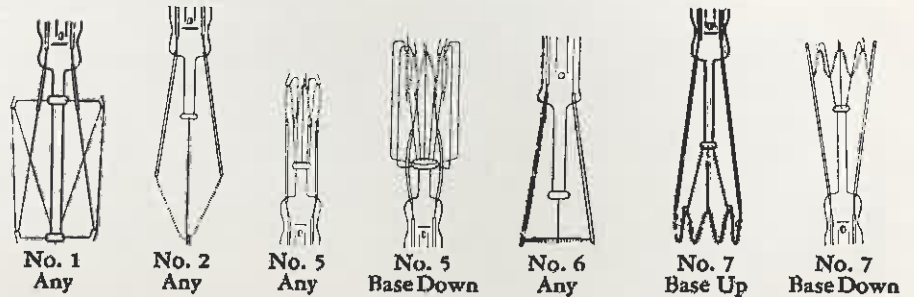


Analyzing gas used in fluorescent lamps and testing for absolute air-tight sealing. This apparatus will detect a leak so small that it would take 100 years to fill a lamp with air.

THE FILAMENT LAMP...

Filament

Electric current passing through the filament must overcome its resistance and the power consumed heats the filament to incandescence. The almost universally used filament material is tungsten. The filament may be straight wire, a coil, or a coiled-coil (indicated respectively by the letters S, C and CC). Coiling the wire reduces gas losses, increases efficiency. The illustrations show some of the commonly used filament forms (numerals) and their specific burning positions.



Gas

Used in most lamps of 40 watts and above, prevents rapid evaporation of the filament, permitting higher temperatures which result in higher efficiencies. Gas-filled lamps are indicated by the letter C, vacuum lamps by the letter B. Usual gas is a mixture of nitrogen and argon. Some lamps for special services may use krypton or hydrogen.

Lead-in Wires

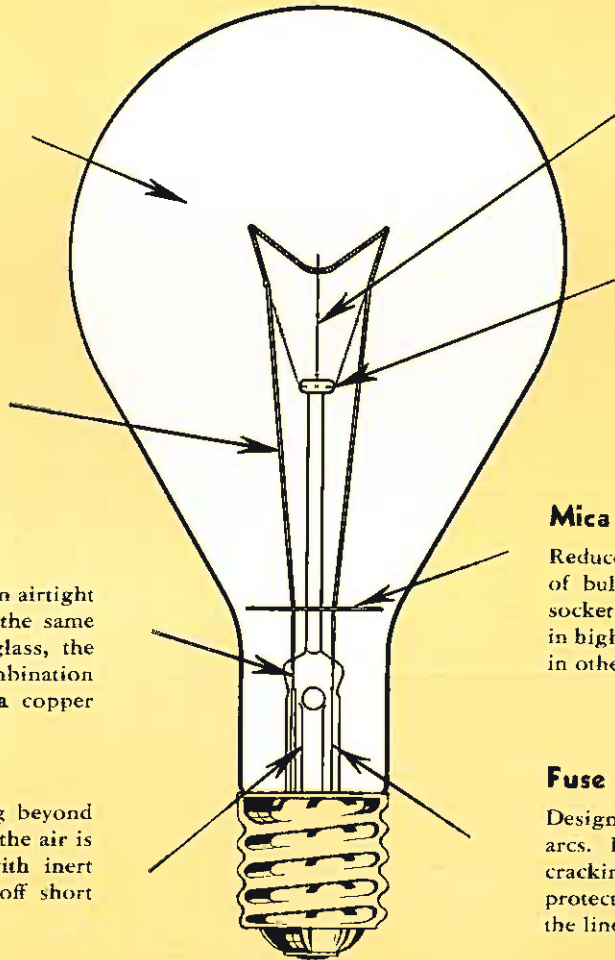
Conduct the current to and from the filament; copper used from base to stem press and nickel from stem press to filament.

Stem Press

The glass and lead-in wires have an airtight seal here. To have substantially the same coefficient of expansion at the glass, the lead-in wire at this point is a combination of a nickel-iron alloy core and a copper sleeve (Dumet wire).

Exhaust Tube

It is through this tube, projecting beyond the bulb during manufacture, that the air is exhausted and the bulb filled with inert gases. The tube is then sealed off short enough for the base to fit over it.



Support Wires

Molybdenum wires hold the filament in place; minimum number desirable to reduce heat losses.

Button

The glass is softened during assembly and the support wires stuck in it. It is supported by the button rod.

Mica Disc

Reduces circulation of hot gases into neck of bulb protecting stem press, stem and socket from excessive temperatures. Used in higher wattage general service lamps and in other types when needed.

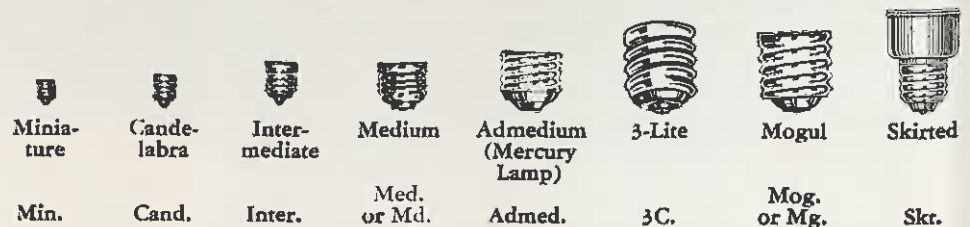
Fuse

Designed to open the circuit if the filament arcs. By reducing sputtering of the metal, cracking of the bulb is prevented. It also protects the circuit and prevents blowing of the line fuses.

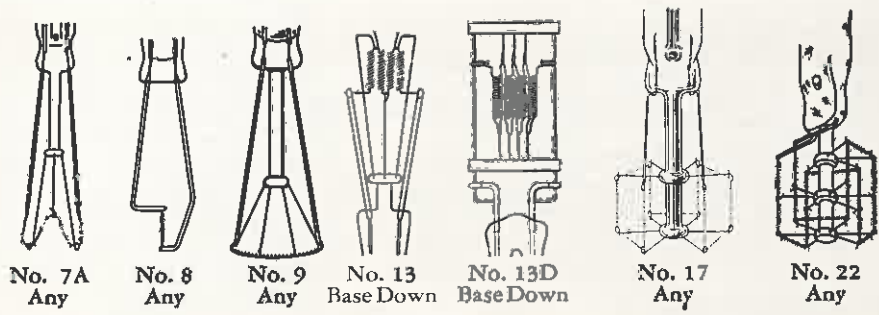
Base

One lead-in wire is soldered to the rim of the base and the other to the center contact. These parts are insulated from each other by a glass insulator which appears as a black ring around the center contact.

Abbreviations used under bases



. . its parts and operation



BULB SHAPES AND SIZES

The general shape of a lamp bulb is designated by a letter or letter combination. The meanings of these letters are:

- | | |
|------------------|--|
| C. Cone shape | T. Tubular |
| S. Straight side | PS. Pear shape, straight neck |
| P. Pear shape | PAR Parabolic |
| F. Flame shape | R. Reflector shape |
| G. Globe shape | A. Arbitrary designation for the shape in which many lamps are made. |

Bulbs are measured through their greatest diameter, in eighths of an inch. Thus a G-25 bulb is globe shape, 25/8 of an inch or 3 1/8 inches in diameter.

BULB FINISHES AND ABBREVIATIONS

Bulbs have several different finishes. They may be clear, colored, inside frosted or coated with diffusing or reflecting materials; soft glass is commonly used; hard glass permits higher wattages in smaller bulbs and use outdoors.

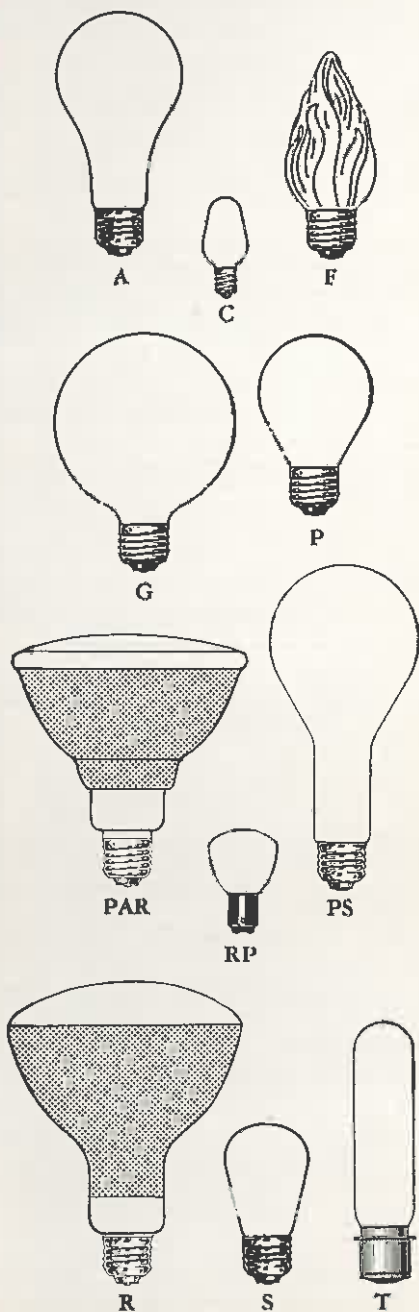
In the tabulated description of lamps many abbreviations are used for finish, service, etc., of which the following are typical.

- | | |
|----------------------------------|----------------------------------|
| AO—amber-orange | OR—outside coated, red |
| B—blue | OV—outside coated, ivory |
| CL—clear | PK—pink |
| D—daylight | R—red |
| DCL—daylight, clear | RFL—reflecting |
| DIF—daylight, inside frosted | RS—rough service |
| FL—floodlight | RY—railway |
| FT—flametint | RYH—railway headlight. |
| G—green | SB—silver bowl |
| GO—gold | SBIF—silver bowl, inside frosted |
| IF—inside frosted | SP—spotlight |
| IC—inside colored | ST—straw |
| OAO—outside coated, amber-orange | SW—soft white |
| OB—outside coated, blue | V—ivory |
| OFT—outside coated, flame-tint | VS—vibration service |
| OG—outside coated, green | W—white |
| | WB—white bowl |
| | Y—yellow |

Ordering abbreviations are generally made up of size, bulb, and finish designation, and sometimes another letter or numeral to differentiate one lamp from another of very similar description.

Examples—

- 25T10/RFL—25-watt, tubular shape, ten-eighths inches (1 1/4 in.) bulb diameter, reflector type.
 100A23/28—100-watt, "A" bulb, 27/8" diameter. "28" is a code number indicating some modification of design.



Bayonet



Disc



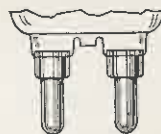
Medium Prefocus



Mogul Prefocus



Medium Bipost



Mogul Bipost

Bay.

Disc.

Med. Pf.

Mog. Pf.

Med. Bi.

Mog. Bi.

BULB FINISHES OF GENERAL

Filament lamps for various lighting services have several different types of bulb finishes. The different finishes include: Inside Frosted, Clear, Daylight Clear and Daylight Frosted, Silvered Bowl, White Bowl, White Enameled, Outside and Inside Colored and Tinted. Each kind of finish has characteristics which make the type of lamp particularly suited to the use for which it is designed.

Inside Frosted Lamps

Inside frosting is applied to a great many different types of bulbs to give added light diffusion and to help eliminate striations and shadows when used in most types of lighting equipment. The light absorbed by the inside frosting is so negligible that the lumen output is practically the same as for corresponding sizes of clear lamps. By frosting the inside of the bulb the outer surface is left smooth and easily cleaned. They are recommended for most general lighting purposes.

Daylight Lamps

Daylight lamps, inside frosted and clear, have blue-green bulbs which absorb some of the red and yellow rays thus producing a whiter light approximating daylight. They are used in places where color correction or discernment is important.

The use of either frosted or clear daylight lamps in most types of lighting equipment is a matter of choice. The frosting diffuses the light and helps reduce glare and sharp shadows.

Silvered Bowl Lamps

These lamps have a coating of mirrored silver on the bowl which forms a highly efficient reflecting surface which does not dull or tarnish throughout the life of the lamp.

Silvered Bowl lamps are particularly suited to indirect lighting types of equipment. The coat of silver shields the brilliant filament, and the frosting on the bulb helps eliminate streaks, striations, and shadows of fixture supports.

Semi-Silvered Bowl lamps are designed to give combination direct-indirect lighting, for use over table and counter displays. Generally used in open bottom fixtures with concentric shielding louvers.



ELECTRIC LAMPS

Clear Lamps

Clear lamps are satisfactory for general lighting when used in enclosed diffusing equipment or shielded reflectors which protect the eyes from glare. They are used also for many special applications requiring more accurate control of light than is obtainable with frosted bulbs.



White Bowl Lamps

White Bowl lamps are designed principally for use in open type direct lighting fixtures. They have a white enamel coating on the inside of the bowl which redirects about 80% of the light upwards. About 20% of the light is diffused downward through the bowl. This redirection and diffusion improves the quality of illumination by softening shadows and reducing glare.



Enameled Lamps

These lamps have a hard, smooth finish, resistant to abrasion. Colors, white, blue, green and red. The white lamps emit a soft, well-diffused light that makes them well suited for general use in homes, stores, offices, or other places where good quality light is desired. Efficiency of light transmission is somewhat lower than clear lamps.

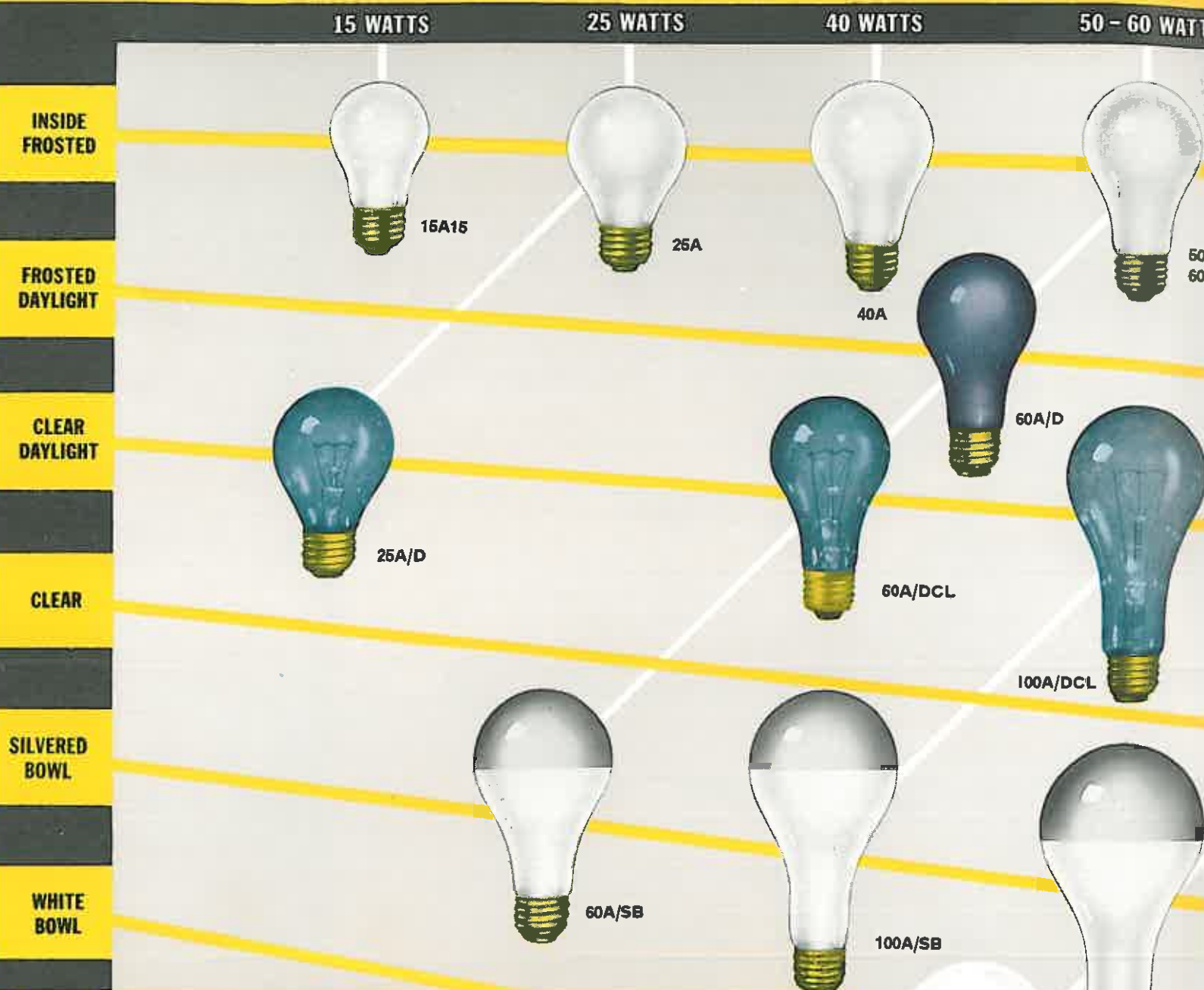


Colored and Tinted Lamps

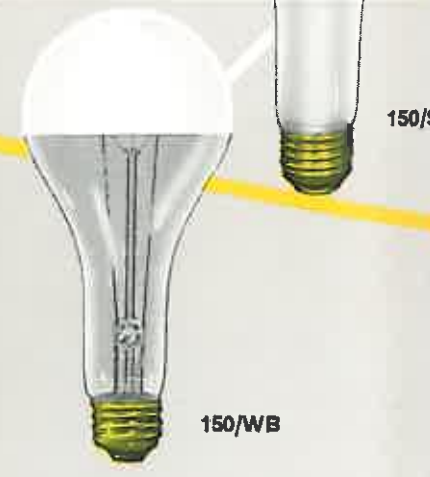
Outside spray coated lamps are suitable for use indoors where they are protected from the weather. Inside coated and enameled lamps have smooth outside surfaces which are easily cleaned and since the coating is not exposed to weather conditions colors are more permanent. Of all colored lamps, natural colored or tinted lamps are highest in lighting efficiency and permanence of color. They are used more for specialized applications than for ordinary sign and decorative color effects.



GENERAL LIGHT



Watts	Bulb	Base	Volts	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lst. Cntr. Lgth.	Class	Filament	Approx. Infr. Lumens
INSIDE FROSTED												
15	A-15	Med.	Std.	15A15	\$0.11 T	6-120	1200	3 1/2	2 1/2	B	C-9	141
25	A-19	Med.	Std.	25A	.11 T	6-120	1000	3 1/2	2 1/2	B	C-9	250
40	A-19	Med.	Std.	40A	.11 T	6-120	1000	4 1/2	3 1/2	C	C-9	455
50	A-19	Med.	Std.	50A	.11 T	6-120	1000	4 1/2	3 1/2	C	CC-6	665
60	A-19	Med.	Std.	60A	.11 T	6-120	1000	4 1/2	3 1/2	C	CC-6	835
75	A-21	Med.	Std.	75A	.15 T	6-120	750	5 1/2	3 1/2	C	C-9	1120
100	A-21	Med.	Std.	100A	.15 T	6-120	750	5 1/2	3 1/2	C	CC-6	1630
150	PS-25	Med.	Std.	150	.20 T	60	750	6 1/2	5 1/2	C	C-9	2600
200	PS-30	Med.	Std.	200/IF	.27 T	60	750	8 1/2	6	C	C-9	3700
250	G-30	Med.	Std.	250G30IL	.70 T	60	500	6 1/2	3 1/2	C	C-7A	4600
DAYLIGHT INSIDE FROSTED												
60	A-19	Med.	Std.	60A/D	.25 T	6-120	1000	4 1/2	3 1/2	C	CC-6	540
75	A-23	Med.	Std.	75A23/D	.30 T	6-120	750	6 1/2	4 1/2	C	C-9	725
100	A-23	Med.	Std.	100A/D	.25 T	6-120	750	6 1/2	4 1/2	C	CC-6	1060
150	PS-25	Med.	Std.	150/D	.45 T	60	1000	6 1/2	5 1/2	C	C-9	1600
200	PS-30	Med.	Std.	200/DIF	.75 T	60	1000	8 1/2	6	C	C-9	2350
DAYLIGHT CLEAR												
25	A-19	Med.	Std.	25A/D	.30 T	6-120	1000	3 1/2	2 1/2	B	C-9	170
60	A-19	Med.	Std.	60A/DCL	.30 T	6-120	1000	4 1/2	3 1/2	C	CC-6	540
100	A-23	Med.	Std.	100A/DCL	.30 T	6-120	750	6 1/2	4 1/2	C	CC-6	1060
150	PS-25	Med.	Std.	150/DCL	.40 T	60	1000	6 1/2	5 1/2	C	C-9	1600
200	PS-30	Med.	Std.	200/D	.70 T	60	1000	8 1/2	6	C	C-9	2350



75 - 100 WATTS

150 WATTS

200 WATTS

250 WATTS



25 WATTS

60 WATTS

 ENAMELED
WHITE

Watts	Bulb	Base	Volts	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovt. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Initt. Lumens
SILVERED AND SEMI-SILVERED BOWL												
60	A-19	Med.	Std.	60A/SB	\$0.24 T	6-120	1000	4 1/8	3 3/4	C	CC-6	.....
100	A-23	Med.	Std.	100A/SB	.28 T	6-120	750	6 1/8	4 3/8	C	CC-6	.....
150	PS-25	Med.	Std.	150/SB	.45 T	60	1000	6 1/8	5 3/4	C	C-9	.....
200	PS-30	Med.	Std.	200/SBIF	.67 T	60	1000	8 1/8	6	C	C-9	.....
200	PS-30	Med.	Std.	*200SBIF/t	.77 T	60	1000	8 1/8	6	C	C-9	.....
† Burn base up in porcelain sockets. * Semi-Silvered												
CLEAR												
*150	PS-25	Med.	Std.	150/CL	.20 T	60	750	6 1/8	5 1/4	C	C-9	2600
200	PS-30	Med.	Std.	200	.27 T	60	750	8 1/8	6	C	C-9	3700
200	PS-30	Med.	Std.	200PS30/12	.37 T	60	750	8 1/8	6 3/8	C	C-9	3650
* Clear bulb lamps of lower wattages also available.												
WHITE BOWL												
150	PS-25	Med.	Std.	150/WB	.25 T	60	750	6 1/8	5 1/4	C	C-9	.....
200	PS-30	Med.	Std.	200/WB	.32 T	60	750	8 1/8	6	C	C-9	.....
ENAMELED WHITE												
25	A-19	Med.	Std.	25A/W	.16 T	6-120	1000	3 1/8	.....	B	C-9	.....
60	A-19	Med.	Std.	60A/W	.16 T	6-120	1000	4 1/8	.....	C	CC-6	.....

200/WB

300 WATT MED.

INSIDE FROSTED

FROSTED DAYLIGHT

CLEAR DAYLIGHT

SILVERED BOWL

CLEAR

WHITE BOWL

Watts	Bulb	Base	Volts	Lamp Order Abbreviation	List Price	Std. Pks. Quan.	Avg. Life	Max. Ovr. Lath.	Avg. Lgt. Cntr. Lgth.	Class	Fila-ment	Approx. Intl. Lumens
INSIDE FROSTED												
300	PS-30	Med. Std.	Std.	300M/IF	\$0.45 T	60	750	8 1/8	6	C	C-9	5900
300	PS-35	Mog. Std.	Std.	300/IF	.70 T	24	1000	9 1/8	7	C	C-9	5650
300	PS-35	Med. Skt. Std.	Std.	300MS/IF	.70 T	24	1000	9 3/8	7 1/2	C	C-9	5650
DAYLIGHT FROSTED												
300	PS-35	Mog.	Std.	300/DIF	1.20 T	24	1000	9 3/8	7	C	C-9	3650
DAYLIGHT CLEAR												
300	PS-35	Med. Skt. Std.	Std.	300MS/D	1.10 T	24	1000	9 3/8	7 1/2	C	C-9	3650
300	PS-35	Mog.	Std.	300/D	1.10 T	24	1000	9 3/8	7	C	C-9	3650
SILVERED AND SEMI-SILVERED BOWL												
300	PS-35	Med. Skt. Std.	Std.	300MS/SBIF	1.20 T	24	1000	9 3/8	7 1/2	C	C-9	.....
300	PS-35	Mog.	Std.	300/SBIF	1.20 T	24	1000	9 3/8	7	C	C-9	.....
300	PS-35	Mogul	Std.	*300/SBIF/1	1.30 T	24	1000	9 3/8	7	C	C-9	.....
† Burn base up in porcelain sockets. *Semi-Silvered.												
CLEAR												
300	PS-30	Med. Std.	Std.	300M	.40 T	60	750	8 1/8	6	C	C-9	5900
300	PS-35	Med. Skt. Std.	Std.	300MS	.65 T	24	1000	9 1/8	7 1/2	C	C-9	5650
300	PS-35	Mog.	Std.	300	.65 T	24	1000	9 1/8	7	C	C-9	5650
WHITE BOWL												
300	PS-35	Med. Std.	Std.	300M/WB	.50 T	24	750	8 3/8	6	C	C-9	.....
300	PS-35	Med. Skt. Std.	Std.	300MS/WB	.70 T	24	1000	9 1/8	7 1/2	C	C-9	.....
300	PS-35	Mog.	Std.	300/WB	.70 T	24	1000	9 1/8	7	C	C-9	.....



300M/IF



300M/WB



300M



300/WB



300



300/SBIF

300 WATT MOGUL

300 WATT MED. SKT.



INSIDE FROSTED

CLEAR DAYLIGHT

SILVERED BOWL

CLEAR

WHITE BOWL

Household and general purpose sizes of general lighting lamps, 25 watts to 300 watts, are equipped with medium screw bases. Higher wattage lamps, 500 watts and up, intended for industrial or commercial lighting service have mogul bases. Lamps in sizes appropriate for either residential, commercial or industrial lighting service, such as the 300-watt size, are made with both medium screw bases, regular and skirted, and mogul screw bases.

Mechanical strength and protection against overloading are important factors that determine the size of base used.

500 WATT MOCUL

500 WATT MED. BIP.

INSIDE FROSTED

FROSTED DAYLIGHT

CLEAR DAYLIGHT

CLEAR

SILVERED BOWL

WHITE BOWL



500/IF



500/DIF



500/D



500T20/50



500



500/SBIF

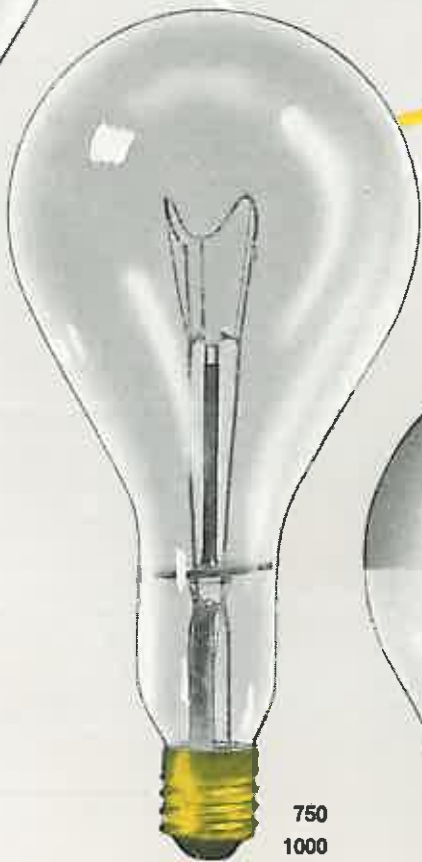
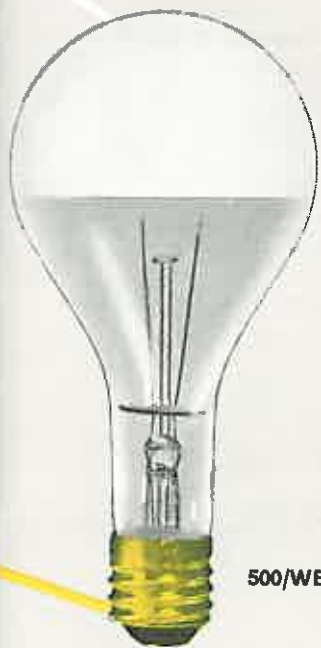
Watts	Bulb	Base	Volts	Lamp Order Abbreviation	List Price	Pkg. Quan.	Avg. Life	M. O. Lgth.	L. C. Lgth.	Class	Fila-ment	Approx. Init. Lumens
INSIDE FROSTED												
500	PS-40	Mog.	Std.	500/IF	\$1.00 T	24	1000	9 $\frac{3}{4}$	7	C	C-7A	9950
500	T-20	Med. Bip.	Std.	500T20/50	2.25 T	12	1000	6 $\frac{1}{2}$	4	C	C-13	9300
750	PS-52	Mog.	Std.	750/IF	3.05 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	15500
① 750	T-24	Med. Bip.	Std.	750T24	3.50 T	12	1000	9 $\frac{3}{8}$	5 $\frac{1}{2}$	C	C-13	14000
① 1000	T-24	Med. Bip.	Std.	1M/T24	3.75 T	12	1000	9 $\frac{3}{8}$	5 $\frac{1}{2}$	C	C-13	19500
1000	PS-52	Mog.	Std.	1000/IF	3.30 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	21500
1500	PS-52	Mog.	Std.	1500/IF	5.00 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	33000
① Burn base up.												
DAYLIGHT FROSTED												
500	PS-40	Mog.	Std.	500/DIF	1.95 T	24	1000	9 $\frac{3}{4}$	7	C	C-7A	6400
DAYLIGHT CLEAR												
500	PS-40	Mog.	Std.	500/D	1.85 T	24	1000	9 $\frac{3}{4}$	7	C	C-7A	6450
SILVERED BOWL												
1500	PS-40	Mog.	Std.	500/SBIF	1.70 T	24	1000	9 $\frac{3}{4}$	7	C	C-7A	.....
1750	PS-52	Mog.	Std.	750/SBIF	4.75 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	.....
1000	PS-52	Mog.	Std.	1000/SBIF	5.00 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	.....
① Burn base up in porcelain sockets.												
CLEAR												
500	PS-40	Mog.	Std.	500	.95 T	24	1000	9 $\frac{3}{4}$	7	C	C-7A	9950
750	PS-52	Mog.	Std.	750	2.90 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	15500
1000	PS-52	Mog.	Std.	1000	3.10 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	21500
1500	PS-52	Mog.	Std.	1500	4.75 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	33000
WHITE BOWL												
500	PS-40	Mog.	Std.	500/WB	1.00 T	24	1000	9 $\frac{3}{4}$	7	C	C-7A	.....
750	PS-52	Mog.	Std.	750/WB	3.05 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	.....
1000	PS-52	Mog.	Std.	1000/WB	3.30 T	6	1000	13 $\frac{1}{16}$	9 $\frac{1}{2}$	C	C-7A	.....

750-1000-1500 WATT MOGUL

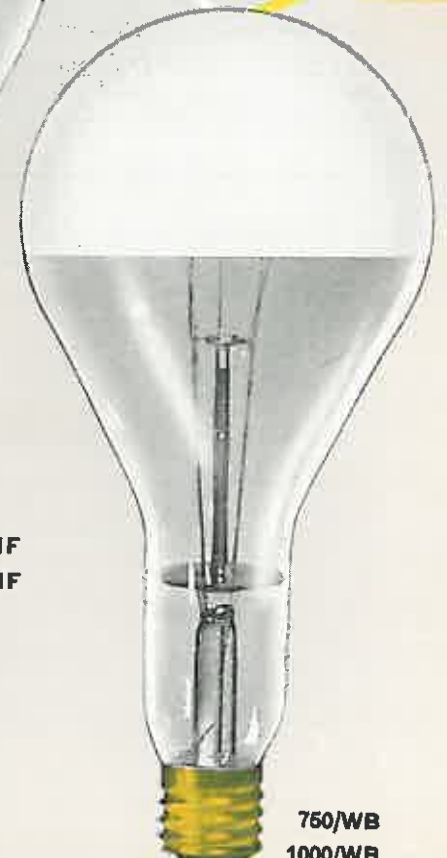
750-1000 WATT MED. BIP.

INSIDE
FROSTED

CLEAR

SILVERED
BOWLWHITE
BOWL750/IF
1000/IF
1500/IF760T24
1M/T24750
1000
1500750/SBIF
1000/SBIF

500/WB

750/WB
1000/WB

T LAMPS

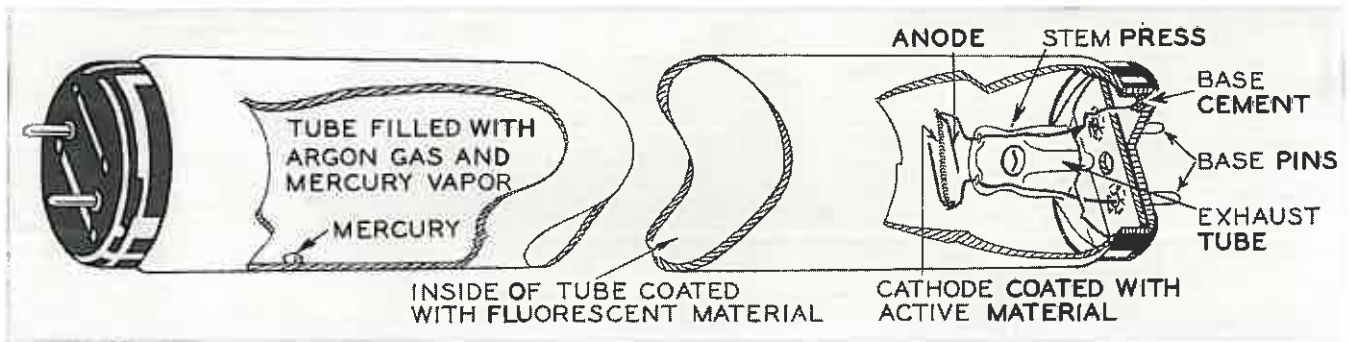
The 750-watt and 1000-watt T shaped lamps with medium bipost bases are made of hard glass and are more rugged and resistant to breakage from any cause. Their small size permits use in smaller lighting equipment.

THE FLUORESCENT LAMP . . .

The fluorescent lamp is a form of light source characterized as an "electric discharge" type as compared with "filament" types of light sources. As is well known, in filament lamps, electric current is conducted through the filament, heating it to incandescence and thus producing light. In fluorescent lamps, gas acts as the conductor in place of the filament and light is produced by electronic activity rather than by heating an element to incandescence.

In simple terms, a fluorescent lamp consists of a tubular bulb filled with argon gas and mercury vapor and with an electrode sealed in each end of the bulb. The tube is coated on the inside with a layer of fluorescent powder. When proper voltage is applied to the electrodes a flow of electrons is driven from one electrode and attracted to the other. The flow of electrons through the mercury vapor result in the production of ultraviolet radiation of certain wavelengths. The phosphor coating on the tube absorbs the ultraviolet energy and transforms it into visible light. Like other electric discharge lamps, fluorescent lamps require properly designed equipment for correct starting and operation.

Reference: General Electric Lamp Department Bulletins LS-101, LS-102.



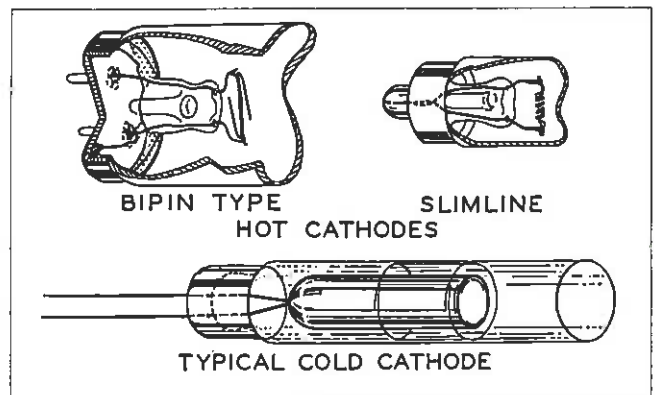
TYPES OF FLUORESCENT LAMPS

All fluorescent lamps are identical in fundamental design and operation. However, considerations of usage divides them into three different lines:

- (1) **General Line Fluorescent Lamps.**
These types of fluorescent lamps with bipin bases are most widely used for general lighting. Most sizes are available in several colors.
- (2) **Slimline Fluorescent Lamps.**
These are instant-start types of long, slim proportions with single pin bases.
- (3) **Circline Fluorescent Lamps.**
Circular shaped fluorescent lamps with 4 prong, connector-type bases and requiring preheat starting switches.

CATHODES

Cathodes are the source of electrons through which the current is conducted in a fluorescent or other electric discharge lamp. The many different designs of cathodes in use narrow down to two principal classes, each adapted to the electrical circuit that may be used for starting and operating. The two types of cathodes in general use in fluorescent lamps are—a filament cathode, made of coiled tungsten wire and coated with electron-bearing materials, and a (cold) cathode in the form of a large area thimble-shaped piece of iron.



BALLASTS • STARTERS • LAMPHOLDERS

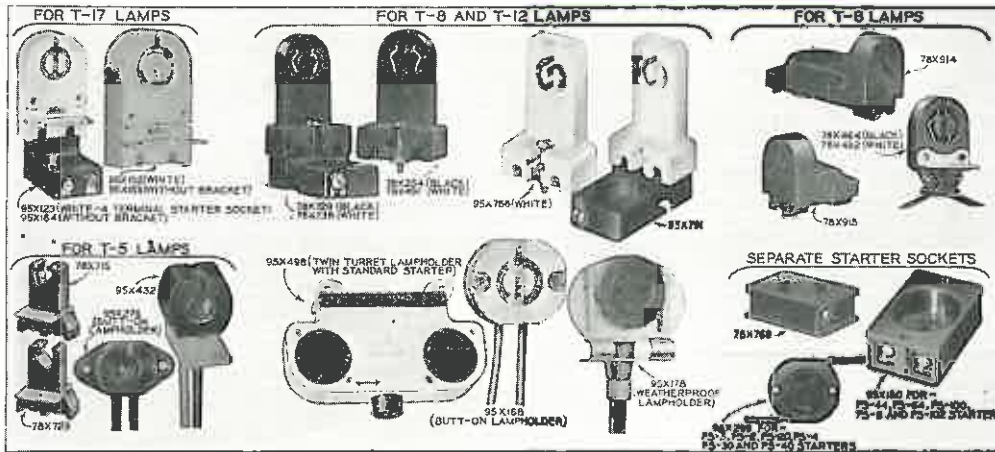
STARTERS



The function of the starter switch is to complete a separate circuit so a preheat current can flow through the filament cathodes and heat them momentarily; after a few seconds the starter circuit automatically opens and the lamp lights. The design of a starter switch is influenced by the starting and operating voltage of the lamp. Since the range between starting and operating voltages varies for different sizes of lamps, several sizes of switches are necessary. Following are Starting Switches recommended for each size of lamp.

FS-5	FS-2	FS-20	FS-4	FS-30	FS-12	FS-40	FS-44	FS-64	FS-100	FS-6	FS-102
6-watt	14-watt	20-watt	13-watt	30-watt	32-watt	40-watt	40-watt	100-watt	100-watt	100-watt	100-watt
8-watt	15-watt	15-watt	30-watt								
	20-watt	14-watt	40-watt								

LAMPHOLDERS



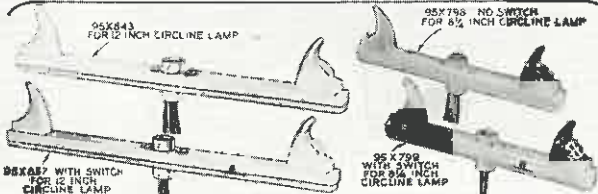
GENERAL LINE

T-5 Cat. No.	T-8 and T-12 Cat. No.	T-17 Cat. No.
78x723	78x354	95x178
78x715	78x491	95x498
95x432	78x729	95x168
95x276	78x736	
T-8 Cat. No.		T-17 Cat. No.
78x915	78x769	95x123
78x914	95x299	95x184
78x464	95x180	95x102
78x492		95x153

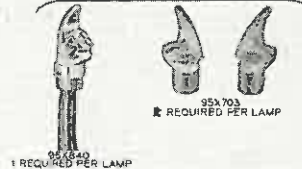
SLIMLINE

T-6 and T-8 Cat. No.	T-6 Narrow Channel Cat. No.
95x637	95x671
95x638	95x683
	95x672
	95x670

CHANNEL-TYPE HOLDERS



INDIVIDUAL-TYPE HOLDERS AND TENSION SUPPORTS



CIRCLINE

T-10 Cat. No.	T-10 Cat. No.
95x843	95x857
95x703	95x798
95x840	95x799
95x841	

FLUORESCENT LAMPS

4 WATTS

6 WATTS

8 WATTS

13 WATTS

14 WATTS



F4T5/D1 F4T5/W1



F6T5/D F6T5/45W
F6T5/W



F8T5/D F8T5/45W
F8T5/W



F13T5/D F13T5/45W
F13T5/W



F14T12/D F14T12/45W F14T12/SW
F14T12/W
F14T12/W/1

The different types and sizes of fluorescent lamps are designed to provide the best characteristics for the great number of different services to which they may be usefully applied.

The 4-, 6-, 8- and 13-watt T-5 Lamps are useful where space limitations in length and diameter are severe such as in showcases, niches, etc., and where small amounts of light are wanted, machine, local lighting, inspection lighting, bed lamps, etc.

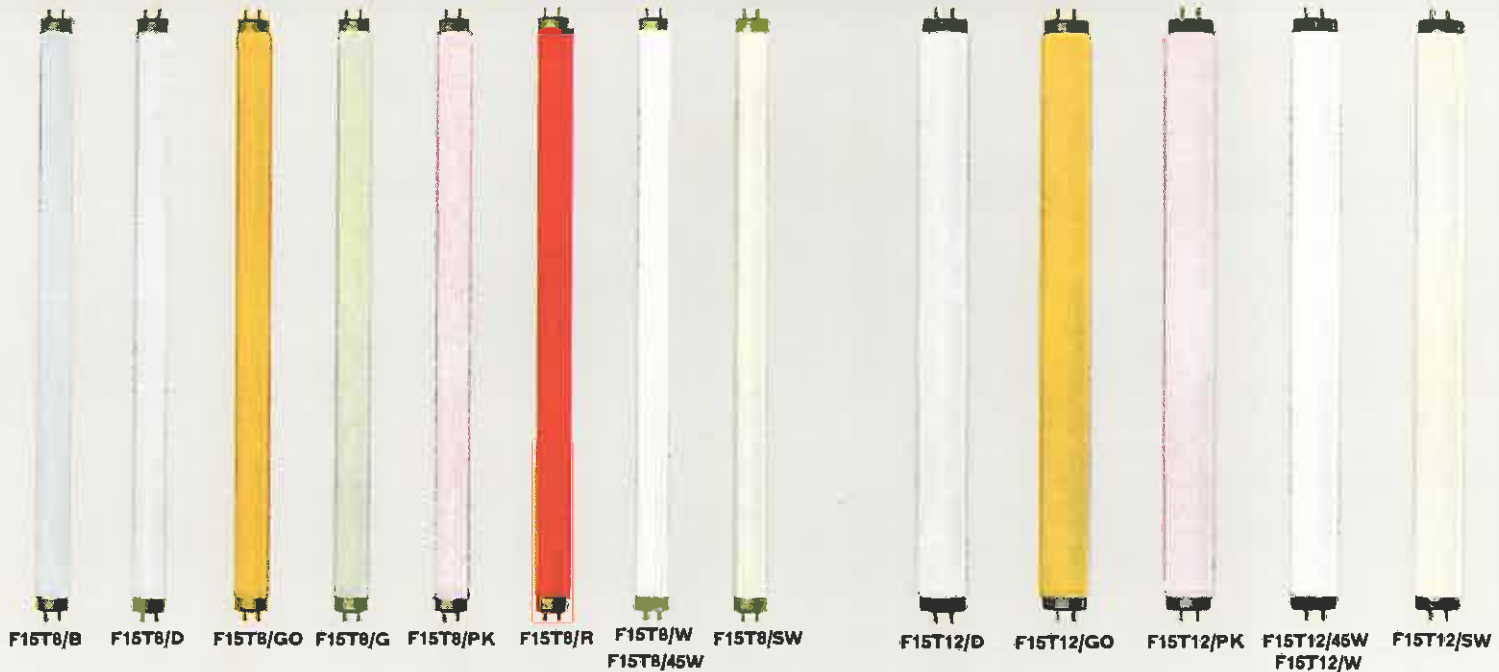
Due to space limitations the same illustration is sometimes used for white lamps of different color temperatures. Example: the F8T5/45W and F8T5/W, left and the F14T12/45W, F14T12/W and F14T12/W/1, above.

Lamps shown approximately 1/4 actual size

Watts	Bulb	Len. inches	Base	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Rated Average Life 3 Hours Per Start	Approx. Init. Lumens
GENERAL LINE FLUORESCENT LAMPS—Use With Starters									
4	T-5	6	Min. Bip.	Daylight White	F4T5/D1	\$0.75 T	24	500	.....
					F4T5/W1	.75 T	24	500	.....
6	T-5	9	Min. Bip.	Daylight 4500 White White	F6T5/D	.75 T	24	2500	186
					F6T5/45W	.75 T	24	2500	198
					F6T5/W	.75 T	24	2500	210
8	T-5	12	Min. Bip.	Daylight 4500 White White	F8T5/D	.85 T	24	2500	295
					F8T5/45W	.85 T	24	2500	310
					F8T5/W	.85 T	24	2500	330
13	T-5	21	Min. Bip.	Daylight 4500 White White	F13T5/D	.95 T	24	2500	520
					F13T5/45W	.95 T	24	2500	545
					F13T5/W	.95 T	24	2500	585
14	T-12	15	Med. Bip.	Daylight 4500 White White White Soft White	F14T12/D	.75 T	24	2500	435
					F14T12/45W	.75 T	24	2500	460
					F14T12/W/1	.75 T	24	1600	485
					F14T12/W	.75 T	24	2500	490
					F14T12/SW	.85 T	24	2500	380

15 WATTS-T-8

15 WATTS-T-12



PHOSPHORS FOR COLORED LIGHT

Phosphors are the powders or chemicals with which the inside of fluorescent lamps are coated. They transform 2537A radiation into visible light of various wavelengths or colors. When lamps are not lighted, fluorescent coatings are matte white, translucent and almost completely diffuse. When lighted, different phosphors produce different colors. All the lamps illustrated above, except the gold and red, are actually white in appearance when not lighted but are shown in the approximate colors produced when lighted. In the case of gold and red lamps an inner coating of that pigment is applied before the phosphor coating. Because of this "filter" the gold and red lamps do not appear white when not lighted.

Four different shades of white light are available in fluorescent lamps; Daylight, 4500 White, White and Soft White.

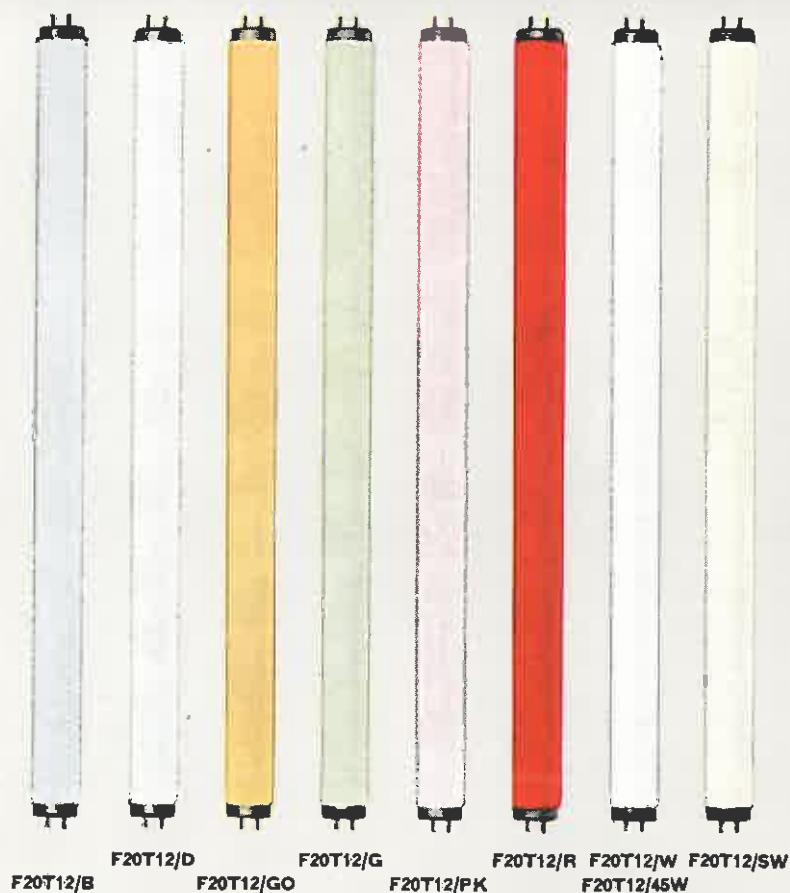
4500 White lamps have characteristics which are balanced between the regular white and daylight colors. The color is sufficiently near daylight to meet ordinary needs for color discrimination and at the same time is warm enough in tone to be pleasing for indoor illumination uses.

Watts	Bulb	Lgth. Inches	Base	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Burning Hours Per Start	Rated Average Life	Approx. Inil. Lumens
GENERAL LINE FLUORESCENT LAMPS—Use With Starters										
15	T-8	18	Med. Bip.	Blue	F15T8/B	\$0.77 T	24			
				Daylight	F15T8/D	.62 T	24		585	
				Gold	F15T8/GO	.87 T	24			
				Green	F15T8/G	.77 T	24			
				Pink	F15T8/PK	.77 T	24			
				Red	F15T8/R	.87 T	24			
				4500 White	F15T8/45W	.62 T	24	3	2500	600
				White	F15T8/W	.62 T	24	6	4000	615
				Soft White	F15T8/SW	.72 T	24	12	6000	480
15	T-12	18	Med. Bip.	Daylight	F15T12/D	.75 T	24			540
				Gold	F15T12/GO	1.00 T	24			
				Pink	F15T12/PK	.90 T	24			
				4500 White	F15T12/45W	.75 T	24		570	
				White	F15T12/W	.75 T	24		600	
				Soft White	F15T12/SW	.85 T	24		465	

Lamps shown approximately 1/6 actual size

20 WATTS

30 WATTS



The 14-, 15- and 20-watt T-12 Lamps and the 15-watt T-8 Lamp are widely used in home lighting for mirror lights, low-priced kitchen units, etc., in stores, niches, signs, wall and show-cases and in industry for local lighting applications. They also serve as "fill in" length for continuous row installation of the longer lamps.

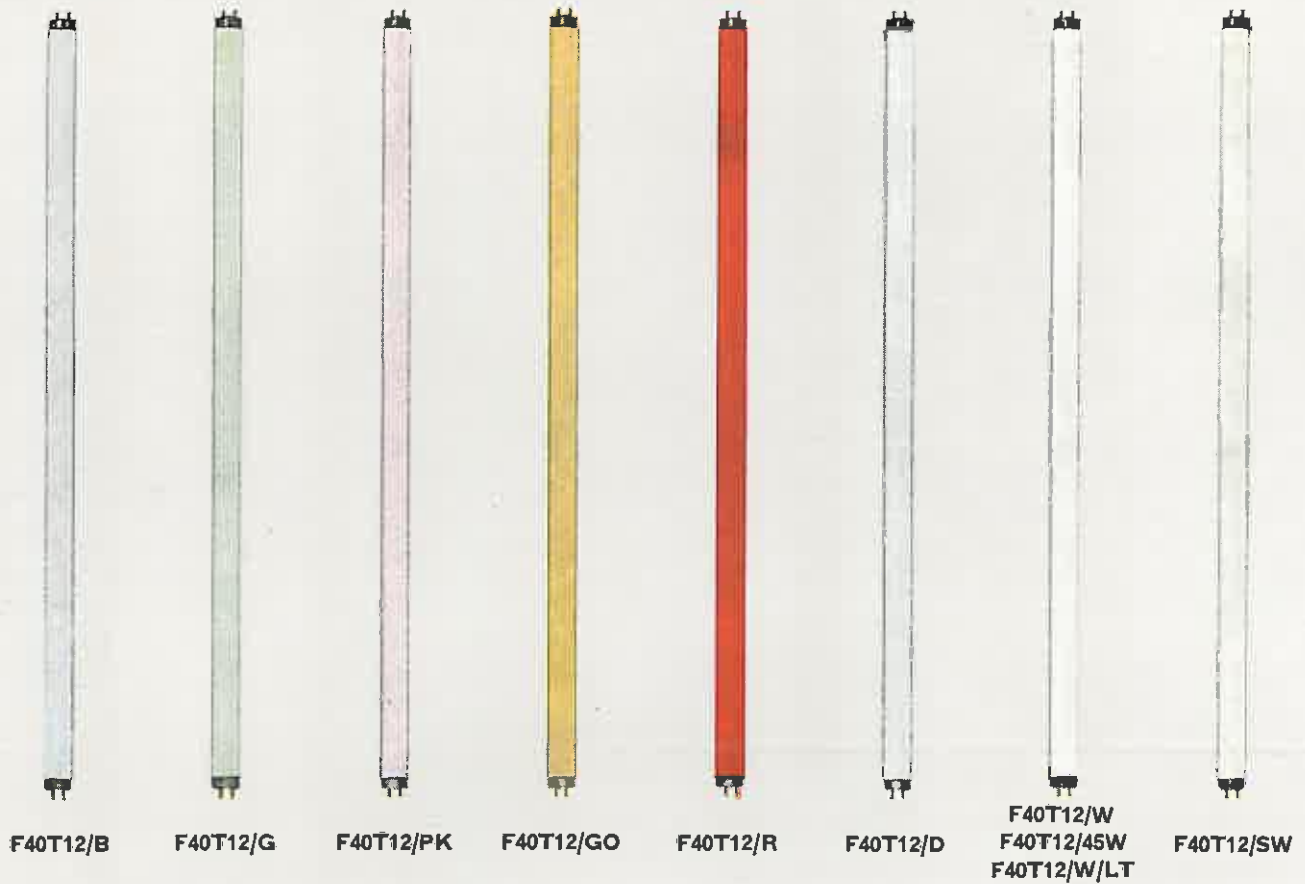
The 30-watt Lamp is widely used for showcase and show window lighting and is sometimes used for general lighting.



Lamps shown approximately 1/6 actual size

Watts	Bulb	Lsth. Inches	Base	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Burning Hours Per Start	Rated Average Life	Approx. Lumens
GENERAL LINE FLUORESCENT LAMPS—Use With Starters										
20	T-12	24	Med. Bip.	Blue	F20T12/B	\$0.90 T	24	3 6 12	9500 4000 6000	800 860 920 700
				Daylight	F20T12/D	.75 T	24			
				Gold	F20T12/GO	1.00 T	24			
				Green	F20T12/G	.90 T	24			
				Pink	F20T12/PK	.90 T	24			
				Red	F20T12/R	1.00 T	24			
				4500 White	F20T12/45W	.75 T	25			
				White	F20T12/W	.75 T	24			
Soft White	F20T12/SW	.85 T	24							
30	T-8	36	Med. Bip.	Blue	F30T8/B	.90 T	24	3 6 12	9500 4000 6000	1350 1380 1470 1170
				Daylight	F30T8/D	.75 T	24			
				Gold	F30T8/GO	1.00 T	24			
				Green	F30T8/G	.90 T	24			
				Pink	F30T8/PK	.90 T	24			
				Red	F30T8/R	1.00 T	24			
				4500 White	F30T8/45W	.75 T	24			
				White	F30T8/W	.75 T	24			
Soft White	F30T8/SW	.85 T	24							

40 WATTS



The 40-watt T-12 Lamp is the most popular general lighting lamp. It is used in industrial, commercial, school, office and residential lighting fixtures, and in strips or channels for wall cases, showcases, and hundreds of other services. It is available in preheat and instant-start types.

The 40-watt T-17 Lamp is designed for general

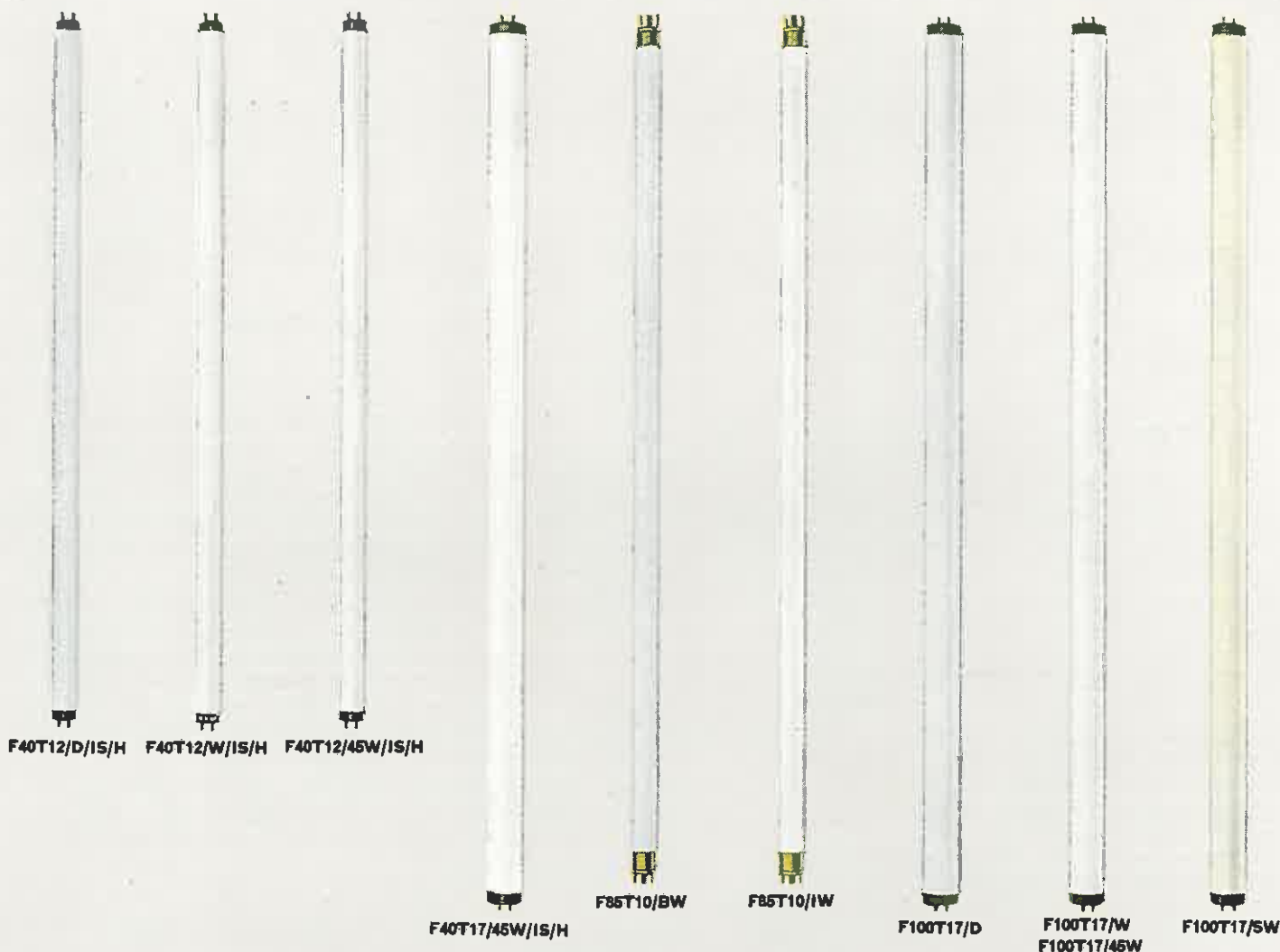
lighting services where minimum of shielding is desired. Surface brightness is comparatively low. It is an instant-start lamp.

The 100-watt T-17 Lamp produces most light of all the lamps in the line. It is widely used for industrial general lighting and is also used in commercial and office applications.

GENERAL LINE FLUORESCENT LAMPS—Use With Starters

Watts	Bulb	Lenh. Inches	Base	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Burning Hours Per Start	Rated Avg. Life	Approx. Initt. Lumen
40	T-12	48	Med. Bip.	Blue	F40T12/B	\$1.25 T	24			
				Green	F40T12/G	1.25 T	24			
				Pink	F40T12/PK	1.25 T	24			
				Gold	F40T12/GO	1.35 T	24			
				Red	F40T12/R	1.35 T	24	3	2500	
				Daylight	F40T12/D	1.00 T	24	6	4000	1920
				4500 White	F40T12/45W	1.00 T	24	12	6000	2100
				White	F40T12/W	1.00 T	24			2300
				Soft White	F40T12/SW	1.15 T	24			1720
				White Low Temp.	F40T12/W/LT	1.10 T	24			
				100	T-17	60	Mog. Bip.	Daylight	F100T17/D	2.30 T	12			3900
4500 White	F100T17/45W	2.30 T	12					3	3000	4000
White	F100T17/W	2.30 T	12					6	4500	4200
Soft White	F100T17/SW	2.50 T	12					12	6500	3300

Lamps shown approximately 1/12 actual size

40 WATTS
85 WATTS
100 WATTS


F40T12/D/IS/H F40T12/W/IS/H F40T12/45W/IS/H

F40T17/45W/IS/H

F85T10/BW

F85T10/IW

F100T17/D

 F100T17/W
F100T17/45W

F100T17/SW

Operating within the recommended range of circuit voltage 40-watt, T-12 lamps will start satisfactorily in temperatures down to 50°F. In applications where temperatures range from 50°F to 0°F the specially designed low-temperature lamp should be used. This lamp should not be used for general service because of its shorter life and inferior lumen maintenance. The life of the 40-watt low-temperature lamp is estimated at about 60 per cent of the ratings given for the standard type.

INSTANT-START LAMPS

Two sizes of 40-watt General Line lamps are available for use in instant-start circuits — 40-watt, T-12, 48 inches long and 40-watt, T-17, 60-inches long. To overcome difficult starting due to conditions of high humidity, instant-start lamps are provided with a thin metallic stripe running lengthwise of the bulb. This produces a capacitive action which assures starting.

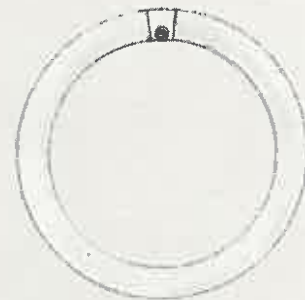
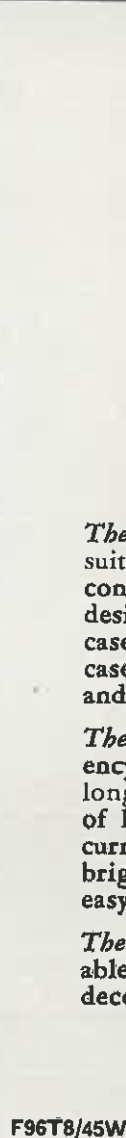
Lamps shown approximately 1/12 actual size.

Watts	Bulb	Length, Inches	Base	Description	Lamp Order Abbreviation	List Price	Sid. Pks. Quan.	Burning Hours Per Start	Rated Avg. Life	Approx. Initt. Lumens
GENERAL LINE FLUORESCENT LAMPS—INSTANT START (No Starters)										
40	T-12	48	Med. Bip.	Daylight	F40T12/D/IS	\$1.00 T	24	3	2500	1920
				4500 White	F40T12/45W/IS	1.00 T	24			2100
				White	F40T12/W/IS	1.00 T	24			2300
40	T-12	48	Med. Bip.	Daylight	F40T12/D/IS/H	1.20 T	24	6	4000	1920
				4500 White	F40T12/45W/IS/H	1.20 T	24			2100
				White	F40T12/W/IS/H	1.20 T	24			2300
40	T-17	60	Mos. Bip.	4500 White	F40T17/45W/IS/H	2.30 T	12	3	3000	2100
				Blue White—RF	F85T10/BW	3.00 T	12			4000
				Industrial White—RF	F85T10/IW	3.00 T	12			3000

FLUORESCENT LAMPS

16-33 WATTS 24-51 WATTS 22-51 WATTS 29-69 WATTS

32 WATTS



FC12T10/45W

Slimline Lamps are appropriate for any fluorescent lighting installation but their smaller diameter makes possible their use in places where space is limited; their lengths, 42" to 96" give longer lines of light with fewer interruptions for operating equipment. They are highest in efficiency and cooler than General Line lamps. They are instant-start and have single pin terminals which make for simpler wiring, easier installation and maintenance.

The 42T6 and 64T6 Slimline Lamps are specially suited for installation in small spaces and where control of light is important. Lengths are designed to fit in average 4 ft. and 6 ft. showcases. Also used for show window and wall case lighting at the higher operating current, and for shelf lighting at low current.

The 72 and 96T8 Slimline Lamps give top efficiency of all lamps for general lighting. Their long length helps appearance and reduces number of lamps, sockets and ballasts needed. Their current range allows low, medium or high brightness operation. Special sockets permit easy installation and relamping.

The Circline Lamp is adaptable for use in portable lamps, home and commercial general and decorative lighting and for inspection lighting.

Watts	Bulb	Base	Lgth. Inches	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Approx. Initial Lumens 4500 White	Burning Hours Per Start	Rated Avg. Life
SLIMLINE FLUORESCENT LAMPS—INSTANT START (No Starters)										
16-33	T-6	Single Pin	42"	4500 White	F42T6/45W	\$1.55 T	24	880-1620	3	2500
			42"	White	F42T6/W	1.55 T	24			
			42"	Soft White	F42T6/SW	1.70 T	24			
24-51	T-6	Single Pin	64"	4500 White	F64T6/45W	1.75 T	24	1370-2600	6	4000
			64"	White	F64T6/W	1.75 T	24			
			64"	Soft White	F64T6/SW	1.90 T	24			
22-51	T-8	Single Pin	72"	4500 White	F72T8/45W	2.00 T	12	1340-2850	12	6000
			72"	White	F72T8/W	2.00 T	12			
29-69	T-8	Single Pin	96"	4500 White	F96T8/45W	2.70 T	12	1800-3950		
			96"	White	F96T8/W	2.70 T	12			

Watts	Bulb	Base	Diameter of Circle	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Rated Avg. Life	Approx. Lumens
CIRCLINE FLUORESCENT LAMPS—Use With Starters									
32	T-10	4-Pin	12"	4500 White	FC12T10/45W	\$1.75 T	12	2500	
32	T-10	4-Pin	12"	White	FC12T10/W	1.75 T	12	2500	1600

Slimline Lamps shown approximately 1/16 actual size, Circline Lamp shown 1/8 actual size.

MERCURY LAMPS

100 WATTS

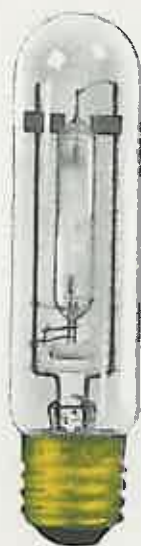
250 WATTS

400 WATTS

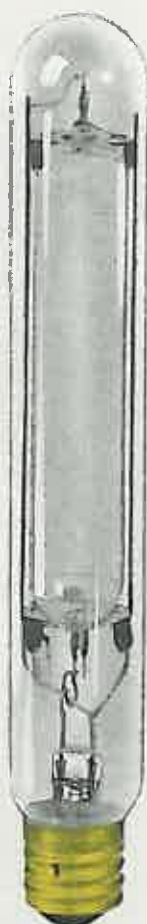
3000 WATTS



A-H4



C-H5



A-H1



A-H9

Mercury lamps are electric discharge sources. The yellowish-green light is emitted by an electric arc formed between two electrodes in the enclosing glass bulb. They require special transformers or regulating devices for starting and operation.

Higher lumen per watt efficiency give mercury lamps preference over filament-type lamps for certain lighting purposes.

The 100-watt A-H4 and the 250-watt C-H5 fill the need for lower wattage mercury lamps for general lighting purposes.

The 250-watt C-H5 is also used for floodlighting, street and tunnel lighting.

The 400-watt A-H1 and B-H1 lamps are widely used for general lighting in industrial plants and for lighting the picking tables in coal mine tipples. The 400-watt FH-1 lamp has a mechanical base and is therefore recommended for use in outdoor lighting applications, particularly in enclosed units for street lighting and floodlighting where higher temperatures are involved. All 400-watt H-1 lamps have a glass arc tube and are designed to be burned within 10° of vertical.

The 3000-watt A-H9 lamp is particularly applicable for high bay lighting in industrial plants. The lumen output of this lamp is equal to 8 - 750-watt filament lamps or over 50 - 40-watt fluorescent lamps.

Reference: General Electric Lamp Department Bulletin LS-103.

Watts	Bulb	Base	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Burning Hours Per Start	Rated Avg. Life	Max. Owl. Lgth.	Avg. Lgt. Ctr. Lgth.	Approx. Inlt. Lumens	Base Burning Position	
MERCURY LAMPS												
100	T-10	Admed.	A-H4	\$11.50 T	6	5	1000	5 3/4	3 1/4	3300	any	
250	T-14	Mog.	C-H5	16.50 T	6	5	2000	8	5	10000	any	
400	T-16	Mog.	A-H1	10.50 T	6	5	4000	13	7 3/4	16000	up	
		Mog.	B-H1	10.50 T								10
		Mog.	F-H1	10.50 T								
3000	T-9 1/2	S.C. Term.	A-H9	48.00 T	1	5	3000	55	120000	any		

A-H9 lamp shown approximately 1/7 actual size

250 WATTS



250R40/10

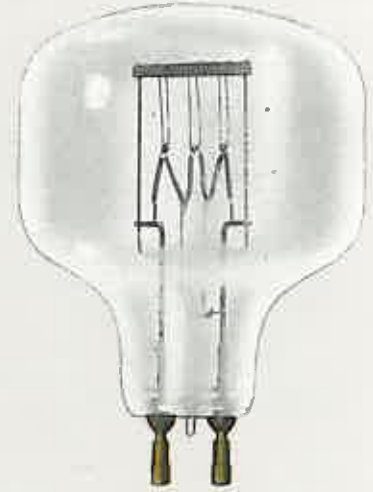
125-375 WATTS

125R40
250R40/4
375R40

125-375 WATTS

125G30
250G30
375G30

1000 WATTS



1M/T40/3

INFRARED HEAT LAMPS

Heat lamps provide penetrating heat that helps to relieve muscular aches and pains, body tension and when heat is needed to ease the discomfort of neuritis, sinus pains, and arthritis. They also have many and varied uses in the home and on the farm for quick drying or heating purposes. The built-in reflector in these lamps concentrates the heat in a beam for more efficient application.

The popular 250R40/10 is made of heat-resistant hard glass with a built-in red filter. It is more rugged and in addition the hard glass provides protection against breakage by splashing water. The built-in red filter reduces the brightness of the lamp giving the user greater eye ease.

The 250R40/1 is a low cost general purpose lamp.

The 250R40/9 is similar to 250R40/1 in general construction but has a coiled coil filament and is of lower brightness.

Reference: General Electric Lamp Department Bulletin—LD-1, and General Electric Lamp Department Bulletin—LD-16.

INDUSTRIAL INFRARED LAMPS

The advantages of infrared drying for industrial applications are in the speed, simplicity and flexibility of its applications, low investment and maintenance costs, increased efficiency and better working conditions. Drying time is usually reduced to a fraction of that required by other methods.

The 125-watt G-30 and R-40 lamps are designed to be used interchangeably with the 250-watt and 375-watt G-30 and R-40 lamps. The lower wattages are especially suited to oven applications where it is desired to maintain a given lamp spacing and distribution of radiant energy, but where temperature required is considerably less than that provided with the 250-watt lamps. They have advantages for pre-heating, for balancing temperatures in ovens where an even heat is required, or for use on finishes which might be harmed by greater energy densities.

T-40 Infrared Industrial lamps are used in open reflector ovens. Made of hard glass with medium bipost bases and 6" flexible connectors, they are used where higher concentrations of infrared energy are needed from open reflectors.

INDUSTRIAL INFRARED LAMPS AND HEAT LAMPS

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovl. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament
125	G-30	Med. Skt.	115-125	Ind.	125G30	\$0.70 N	60	5000	7 $\frac{3}{8}$	5	C	C-7A
250	G-30	Med. Skt.	115-125	Ind.①	250G30	.80 N	60	5000	7 $\frac{3}{8}$	5	C	C-7A
375	G-30	Med. Skt.	115-125	Ind.	375G30	1.05 N	60	5000	7 $\frac{3}{8}$	5	C	C-7A
125	R-40	Med. Skt.	115-125	Ind.	125R40	1.15 N	24	5000	7 $\frac{3}{8}$	5	C	C-9
250	R-40	Med.	115-125	Heat	250R40/9	1.70 N	24	5000	6 $\frac{3}{8}$	5	C	CC-9
250	R-40	Med.	115-125	Heat	250R40/1	1.10 N	24	5000	6 $\frac{3}{8}$	5	C	C-9
250	R-40	Med.	115-125	Heat	250R40/10	2.95 N	24	5000	6 $\frac{3}{8}$	5	C	C-9
250	R-40	Med. Skt.	115-125	Ind.①	250R40/4	1.25 N	24	5000	7 $\frac{3}{8}$	5	C	C-9
375	R-40	Med. Skt.	115-125	Ind.①	375R40	1.50 N	24	5000	7 $\frac{3}{8}$	5	C	C-9
500	T-40	Med. Bip.	115-125	Ind.	500T40/3	5.50 N	12	5000	7 $\frac{3}{8}$	3 $\frac{3}{8}$	C	
1000	T-40	Med. Bip.	115-125	Ind.	1M/T40/3	7.00 N	12	5000	7 $\frac{3}{8}$	3 $\frac{3}{8}$	C	

3, 4 WATTS

6 WATTS

15 WATTS

30 WATTS

40 WATTS

100 WATTS

250 WATTS


 F5000
F3RP12/360BL

F6T5/360BL

F15T8/360BL

F30T8/360BL

F40T12/360BL



B-H4



250A21/60



C-H4



E-H4



A-H5

Fluorescent lamps containing a phosphor whose radiation peaks around 3600Å are now available. Designated as "360BL" lamps.

The RP-12 is designed to operate on 12-16-volt (3 watts) and 24-28-volt (4 watts) DC circuits for fluorescent instrument dial lighting on airplanes.

Reference: General Electric Lamp Department Bulletin LS-103.

Black light lamps have many industrial and commercial applications, such as for activating fluorescent materials, in inspection processes, in the field of mineralogy, on maps, markers, sketches, laundry, etc. They operate on the same principle as other mercury vapor lamps, and require appropriate auxiliary operating apparatus. Visible light is absorbed by using a red purple filter. In the B-H4 the filter is an outer bulb, in other H lamps it is an accessory attached to the unit. The 100-watt spot and flood lamps are self-contained units requiring only filters fitted over the ends of the lamps.

The 250A21/60 is a filament lamp with a red purple bulb for intermittent use as a relatively weak source of black light radiation. It requires no auxiliary equipment and can be operated from an ordinary socket.

Watts	Bulb	Base	Description	Lamp Order Abbreviation	List Price	Std. Pks. Quan.	Avg. Life [Ⓢ]	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Initt. Lumens
TYPE H BLACK LIGHT LAMPS												
100	T-16	Admed.	Nat. Red-Purp.	B-H4	\$12.50 N	6	1000	5 1/2	3 1/8	..	.....	.....
100	PAR-38	Admed. Skl.	Spotlight	C-H4	12.00 N	12	1000	5 1/8	.....	..	.....	.....
100	PAR-38	Admed. Skl.	Floodlst.	E-H4	12.00 N	12	1000	5 1/8	.....	..	.....	.....
250	T-14	Mog.	Blk. Lgt.	A-H5	16.50 N	6	1000	8	5	..	.....	10000
FILAMENT												
250	A-21	Med.	Purp. X	250A21/60	1.25 N	6-120	50	4 1/8	3 3/8	C	C-9	.....
Watts	Bulb	Length	Base	Description	Lamp Order Abbreviation	List Price	Std. Pks. Quan.	Useful Life				
FLUORESCENT BLACK LIGHT LAMPS												
6	T-5	9	Med. Bip.	360BL	F6T5/360BL	\$1.00 N	24	750				
15	T-8	18	Med. Bip.	360BL	F15T8/360BL	.87 N	24	1250				
30	T-8	36	Med. Bip.	360BL	F30T8/360BL	1.00 N	24	1250				
40	T-12	48	Med. Bip.	360BL	F40T12/360BL	1.35 N	24	1250				
3	RP-12	2 1/8	D.C. Index. 12-16V	360BL	F3RP12/360BL	1.25 N	24	200*				
4	RP-12	2 1/8	D.C. Index. 24-28V	360BL	F5000	.85 N	24	200*				

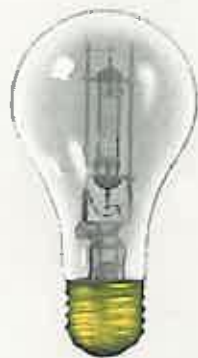
[Ⓢ] Life under specified test conditions with lamps turned off and restarted no oftener than once every 5 burning hours. * Life under specified test conditions.

SUN LAMPS

100 WATTS

275 WATTS

400 WATTS



S-4



RS-4



RS



S-1

Sunlamps are usually employed in portable-type lamps and fixtures for homes, offices, and similar locations; in various types of farm units for irradiating animals and poultry and in solaria.

Sunlamps operate on the same principle as other mercury vapor lamps but the bulbs are made of a special glass which transmits biologically active ultraviolet radiations and absorbs shorter wavelength radiation irritating to the eyes. Sunlamps emit considerable radiant energy in the ultraviolet region most effective in producing erythema or reddening of the skin and eventual tanning.

The 400-watt S-1 is designed for uses where a combination of ultraviolet, infrared and visible light is desired.

The 100-watt RS-4 has a sealed-in aluminum reflector and was designed principally for poultry and animal husbandry applications. It has a heavy frosting on the end of the bulb to give a wide distribution of energy and reduce the number of units required.

The 100-watt S-4 has a clear bulb and is designed primarily for home use in an auxiliary reflector. Both the S-4 and the RS-4 lamps have admedium screw bases and therefore cannot be inserted in the common household socket.

The 275-watt RS is the most popular of all types of Sunlamps. It is an efficient, self-contained unit designed especially for home use. No special fixture or reflector is needed. It may be inserted into any standard household type of socket but must be operated on 110 - 125 volts (50 - 60 cycle) A.C.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbrev.	List Price	Std. Pkg. Quan.	Applications ^①	Rated Average Life ^②	Max. Ovr. Lyth.
SUNLAMPS										
275	R-40	Med.	Std.	Reflector	RS	\$ 9.95 N	6	500		7
100	R-40	Admed.	Std.	Reflector	RS-4	10.00 N	6	1000	1000	6 $\frac{3}{4}$
100	A-21	Admed.	Std.	Clear	S-4	11.00 N	6	1000	1000	5 $\frac{1}{4}$
400	PS-22	Mog.	Std.	Inside Frosted	S-1	4.75 N	6	800	500	6 $\frac{1}{4}$

^① In ordinary household use where comparatively short burning hours are involved.

^② Life under specified test conditions with lamps turned off and restarted no oftener than once every five hours.

With the exception of the RS lamp all G-E Sunlamps require supplementary operating equipment.

Reference: General Electric Lamp Department Bulletin LS-103, LD-1.

GERMICIDAL LAMPS

4 WATTS

8 WATTS

15 WATTS

30 WATTS



G4T4/1



G8T5



G15T8



G30T8

Germicidal lamps are mercury-type lamps with a special glass which transmits most ultraviolet energy in the region of 2537A wavelengths, most effective in destroying molds and bacteria. They have wide application in hospitals to disinfect air in nurseries, contagious wards and surgeries as well as in schools, barracks, and other places where the control of air and surface bacteria is of greatest public concern. They are used also to provide sterile storage for foods, pharmaceuticals and other product protection.

Germicidal lamps should be properly installed in correctly designed fixtures to give proper distribution of ultraviolet for air disinfection. Also, fixtures should be designed to give close range protection of eyes from germicidal energy which might cause painful conjunctivitis later.

Direct intense exposure to germicidal energy may fade certain colors in materials. Certain types of vegetation may be killed if exposed too long to this energy. All such undesirable effects result from incorrect applications or improper installations.

Lamps shown approximately 1/6 actual size.

Watts	Bulb	Base	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovt. Lgth.
GERMICIDAL LAMPS							
4	T-4	Oval Small 4-Pin	G4T4/1	\$3.40 N	12	2500	5 1/2
8	T-5	Min. Bipin	G8T5	4.25 N	24	2500	12 3/4
15	T-8	Med. Bipin	G15T8	4.50 N	24	2500	18
30	T-8	Med. Bipin	G30T8	6.75 N	24	2500	36

Auxiliary equipments for the 8-, 15-, and 30-watt sizes of germicidal lamps are identical with those for standard fluorescent lamps of corresponding sizes. The 4-watt lamp has a bent U tube and a radio-type base and uses a special ballast and starter.

Reference: General Electric Lamp Department Bulletins LD-11, LD-14, LD-15.

THREE-LITE LAMPS

30-70-100 WATTS 50-100-150 WATTS 50-100-150 WATTS 100-200-300 WATTS

INSIDE
FROSTED



30/100



50/150M



50/150



100/300

General Electric Three-Lite lamps have two filaments in a single bulb. Each filament is of a different wattage and may be lighted individually or in combination with the other to produce three levels of illumination.

Thus with a single lamp the user can adjust the illumination to suit the needs . . . the lower wattage for decorative and casual use, an intermediate step, and higher wattage for use where seeing requirements call for higher levels of illumination.

These lamps are particularly applicable to study and reading lamps and to indirect and semi-indirect floor lamps.

The lamps are inside frosted to assure complete diffusion and to avoid uneven light streaks and harsh lines of cutoff on ceiling and side-walls when used in indirect portables and wall urns.

Three-Lite lamps are designed for base-down burning.

MARINE LAMPS

The 50-50 and 100-100 lamps are double-filament lamps with three contact bases for use on a three-wire system. The extra filament provides an emergency source for use until the lamp can be replaced.



50/50P25/28
100/100P25/29

Watts	Bulb	Base	Volts	Lamp Order Abbreviation	List Price	Std. Pkg. Qn.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament
THREE-LITE LAMPS											
30 70 100	A-21	3c Med.	Std.	30/100	\$0.27 T	6-120	750	5 1/8	3 3/4	C	2 C-9
50 100 150	PS-25	3c Med.	Std.	50/150M	.33 T	60	750	5 1/8	3 3/4	C	2 C-9
50 100 150	PS-25	3c Mog.	Std.	50/150	.44 T	60	1000	6 1/8	5	C	2 C-9
100 200 300	G-30	3c Mog.	Std.	100/300	.55 T	60	1000	6 3/4	3 3/4	C	2C-2R
TWO FILAMENT MARINE LAMPS											
50 50 100	P-25	3c Mog.	Std.	50/50P25/28	2.40 T	60	750	5 1/8	3 1/8	C	C-5, C-9
100 100	P-25	3c Mog.	Std.	100/100P25/29	2.65 T	60	750	5 1/8	3 1/8	C	C-5, C-9

150 WATTS

150 - 300 WATTS

General Electric Projector Lamps and Reflector Lamps are self-contained spot and floodlighting units widely used in commercial and industrial applications.



150PAR/FL



150R/FL
300R/FL
300R/FL/1



150PAR/SP



150R/SP
300R/SP

The *PAR-38* bulb is constructed of two moulded glass sections. The bowl-shaped section which incorporates the base and filament has a highly reflecting surface and to this is fused the end cover plate. Both sections are made of heat-resisting glass. These lamps may be used outdoors in exposed positions as they are not affected by weather conditions and are hermetically sealed against dust and dirt. The Projector Spot has a high-intensity concentrated beam. The Projector Flood has a wide spread beam.

The *150PAR/3FL* and *150PAR/3SP* are designed primarily for use in equipment combining fluorescent and filament lighting. They have side prong bases which reduce over-all length and permit substantial reduction in fixture thickness.

G-E Reflector lamps have the reflector sealed in as an integral part of the lamps and the filament is positioned for accurate light control. The *R-40* lamps illustrated have blown bulbs and are less rugged than the *PAR-38* lamps. They are designed for indoor use only. The *300R/FL/1*, listed below, has a hard glass bulb for outdoor use. It is not recommended for base-down burning.

In addition to their wide use in commercial fields *R-40* lamps are recommended for use in foundries, drop forge shops and other places where depreciation of equipment is unusual due to dirt collection. They should be burned in porcelain sockets.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovl. Lgh.	Class	Filament
PROJECTOR AND REFLECTOR LAMPS											
150	PAR-38	Med. Skt.	Std.	Flood	150PAR/FL	\$1.55 T	12	1000	5 1/8"	C	CC-6
150	PAR-38	Med. Skt.	Std.	Spot	150PAR/SP	1.55 T	12	1000	5 1/8"	C	CC-6
150	PAR-38	Side Prong	Std.	Flood	150PAR/3FL	1.80 T	12	1000	4 3/8"	C	CC-6
150	PAR-38	Side Prong	Std.	Spot	150PAR/3SP	1.80 T	12	1000	4 3/8"	C	CC-6
150	R-40	Med.	Std.	Flood	150R/FL	1.05 T	24	1000	6 1/2"	C	C-11
150	R-40	Med.	Std.	Spot	150R/SP	1.05 T	24	1000	6 1/2"	C	C-11
300	R-40	Med.	Std.	Flood	300R/FL	1.55 T	24	1000	6 1/2"	C	CC-2V
300	R-40	Med.	Std.	Spot	300R/SP	1.55 T	24	1000	6 1/2"	C	CC-2V
300	R-40	Med.	Std.	Flood	300R/FL/1	2.95 T	24	1000	6 1/2"	C	CC-2V

FLOOD LIGHT LAMPS

250 WATTS

400 WATTS

500 WATTS

1000 WATTS

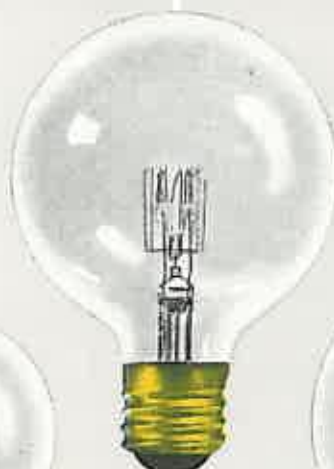
1500 WATTS



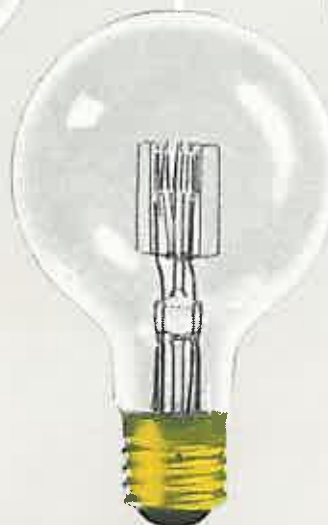
250G/FL



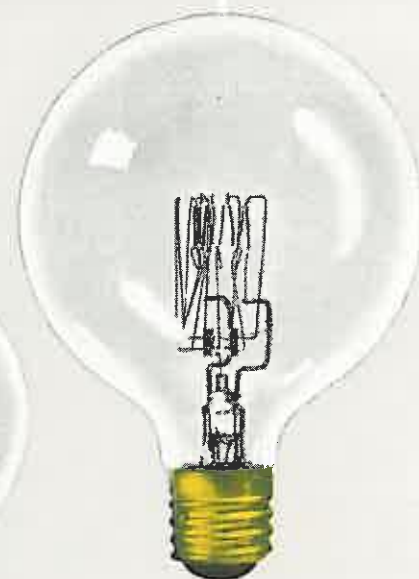
400G/FL



500G/FL



1M/G40FL



1500G48/6

FLOODLIGHT LAMPS

Floodlight lamps and spotlight lamps are made with the filament concentrated into a small space and accurately positioned with respect to the base. They are for use in equipments so designed that a narrow beam of light is obtained at the focal point of reflector and lens systems. The beam may be projected a relatively long distance or confined to a small area. Where it is not necessary to have a closely controlled beam of narrow divergence, general service lamps are used in equipments designed to accommodate them.

Floodlight lamps may be burned in positions from vertical base down to horizontal. Unsatisfactory lamp operation is likely to occur in burning positions between horizontal and base up.

The 500T20/64 and all other spot and floodlight lamps from 1000-watts up have bulbs of heat-resisting glass.

SPOTLIGHT LAMPS

Spotlight lamps are similar in construction to floodlight lamps but are designed to give higher light output in theatre and display equipment where narrow beams are required.

For narrower beams of high intensity, Projection lamps may be used in appropriate equipment.

Watts	Bulb	Base	Volts	Base Burning Position	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Owl. Lgth.	Avg. Lst. Cntr. Lgth.	Class	Filament	Approx. Init. Lumens
FLOODLIGHT LAMPS													
*150	PAR-38	Med. Skt.	Std.	Any	150PAR/FL	\$1.55 T	12	1000	5 1/8	.....	C	CC-6	.....
*150	R-40	Med.	Std.	Any	150R/FL	1.05 T	24	1000	6 1/2	.....	C	C-11	.....
250	G-30	Med.	Std.	①	250G/FL	1.15 T	24	800	5 1/8	3	C	C-5	3750
*300	R-40	Med.	Std.	Any	300R/FL	1.55 T	24	1000	6 1/2	.....	C	CC-2V	.....
400	G-30	Med.	Std.	①	400G/FL	2.00 T	24	800	5 3/8	3	C	C-5	6600
500	G-40	Mog.	Std.	①	500G/FL	2.10 T	12	800	7 1/8	4 1/2	C	C-5	8800
1000	G-40	Mog.	Std.	①	1M/G40FL	5.00 T	12	800	8	5 3/4	C	C-5	19500
1500	G-48	Mog.	Std.	Up	1500G48/6	9.25 T	6	800	8 3/8	5 3/4	C	C-5	30000
1500	T-24	Mog. Bip.	32	Down	1500T24	15.00 T	12	100	10 1/2	4	C	C-13B	42000
3000	T-32	Mog. Bip.	32	Down	3M/T32	22.00 T	6	100	14	5 3/8	C	C-13B	88500
5000	T-64	Mog. Bip.	Std.	Down	5M/T64/1	23.00 P	1	75	13 3/4	6 1/8	C	C-13	164000
10M	G-96	Mog. Bip.	Std.	Down	10M/G96/2	65.00 P	1	75	17 3/4	10	C	C-13	395000

* See page 33, Reflector and Projector Lamps.

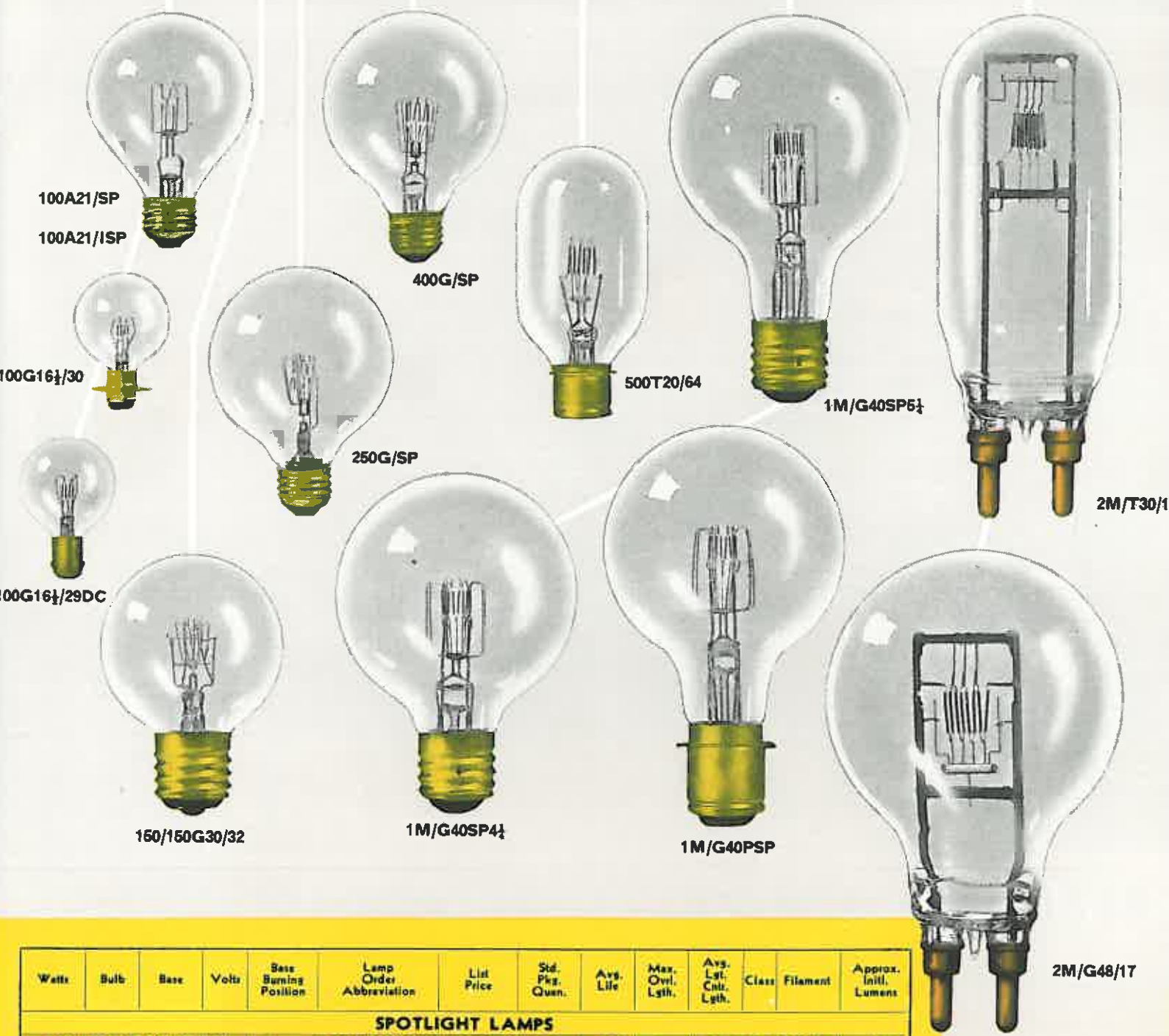
† See page 47, Photographic Lamps.

① Burn base down to horizontal.

‡ See page 39, Airport Floodlight Lamps.

SPOT LIGHT LAMPS

100 WATTS 150 WATTS 250 WATTS 400 WATTS 500 WATTS 1000 WATTS 2000 WATTS



Watts	Bulb	Base	Volts	Base Burning Position	Lamp Order Abbreviation	List Price	Std. Pkg. Quen.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Initt. Lumens
SPOTLIGHT LAMPS													
100	G-16 1/2	S.C. Bay.	Std.	⊙	100G16 1/2/29SC	\$0.90 T	6-60	200	3	1 3/4	C	CC-13	1600
100	G-16 1/2	D.C. Bay.	Std.	⊙	100G16 1/2/29DC	.90 T	6-60	200	3	1 3/4	C	CC-13	1600
100	G-16 1/2	D.C. Pf.	Std.	⊙	100G16 1/2/30	1.00 T	6-60	200	3	1 3/4	C	CC-13	1600
100	A-21	Med.	Std.	⊙	100A21/SP	.80 T	6-120	200	4 1/4	3	C	C-5	1360
100	A-21	Med.	Std.	Up	100A21/1SP	1.30 T	6-120	200	4 1/4	3	C	C-5	1330
*150	PAR-38	Med. Skt.	Std.	Any	150PAR/SP	1.55 T	12	1000	5 1/2	...	C	CC-6	...
*150	R-40	Med.	Std.	Any	150R/SP	1.05 T	24	1000	6 1/2	...	C	C-11	...
150	G-30	3c Mog. (Hospital Spot)	Std.	Down	150/150G30/32	3.10 T	60	200	5 3/4	3 3/8	C	C-5-C-9	2000 2500
250	G-30	Med.	Std.	⊙	250G/SP	1.15 T	24	200	5 1/4	3	C	C-5	4400
*300	R-40	Med.	Std.	Any	300R/SP	1.55 T	24	1000	6 3/4	...	C	CC-2V	...
400	G-30	Med.	Std.	⊙	400G/SP	1.75 T	24	200	5 3/4	3	C	C-5	8000
500	T-20	Md. Pf.	Std.	⊙	500T20/64	3.00 T	12	500	5 3/4	2 1/4	C	C-13	9500
1000	G-40	Mog.	Std.	⊙	1M/G40SP4 1/2	5.00 T	12	200	7 1/4	4 1/4	C	C-5	22500
1000	G-40	Mog.	Std.	⊙	1M/G40SP5 1/2	5.00 T	12	200	8	5 1/4	C	C-5	22500
1000	G-40	Mog. Pf.	Std.	⊙	1M/G40PSP	5.40 T	12	200	8 1/4	3 1/2	C	C-5	22500
2000	G-48	Mog. Bip.	Std.	Down	2M/G48/17	11.00 T	6	200	9 3/8	5	C	C-13	52000
2000	T-30	Mog. Bip.	Std.	Up	2M/T30/1	15.25 T	6	200	10	6 3/8	C	C-13D	48000

* See page 33. Reflector and Projector Lamps.

⊙ Burn base down to horizontal.

15 WATTS

25-50 WATTS

100 WATTS

200 WATTS

300 WATTS

INSIDE FROSTED



15A



25A
50A



100A



200/IF



300/IF

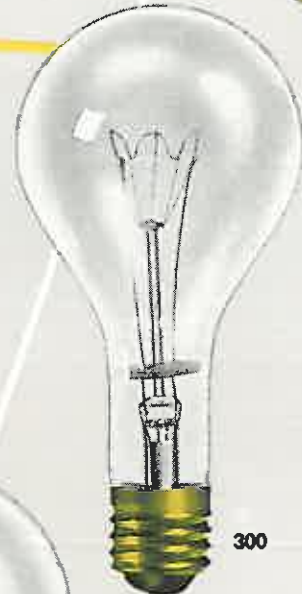
These lamps, which are somewhat less rugged and less efficient than 115-125-volt lamps, are made available for use in the relatively few locations where only the higher voltage is available.

CLEAR

High voltage lamps, nominally 230 to 250 volts, will operate in any position of burning, but the lumen maintenance is best when burned vertically base up. The filaments in high voltage lamps are narrower and longer than those in standard voltage lamps. They require more supports which detracts from the efficiency of the lamps.



200



300

MINE LAMPS

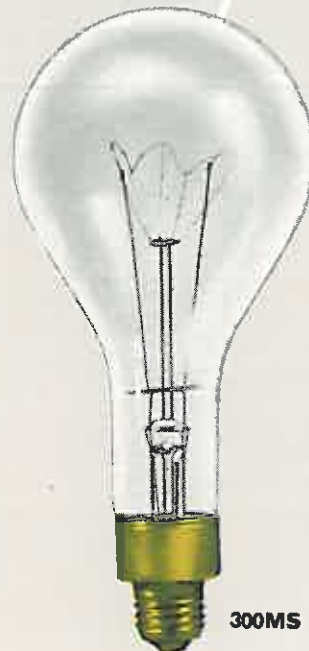
50 WATTS



50A19/35
50A19/36
50A19

MINE LAMPS

The 50-watt, A-19 lamp, clear and inside frosted, is available in two voltages, 275 volts and 300 volts, for mine lighting service. Mercury lamps for mine lighting service are discussed on page 27.



300MS

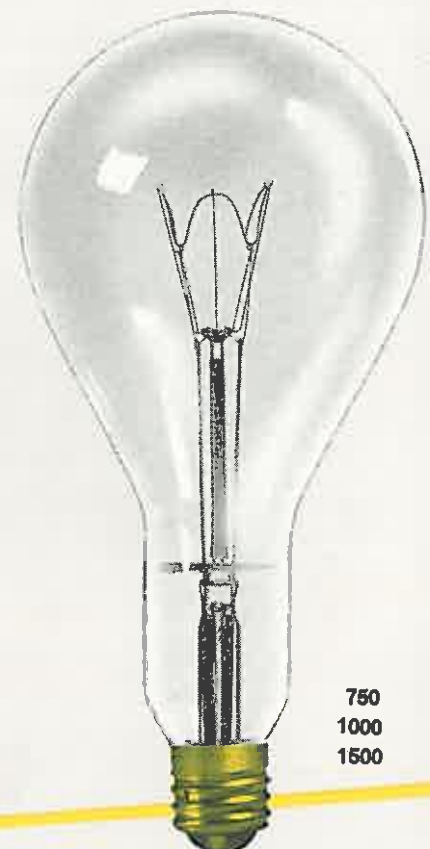
500 WATTS

750 and 1000 WATTS

750 and 1500 WATTS



500/IF


 750/IF
1000/IF

 750
1000
1500

CLEAR



500

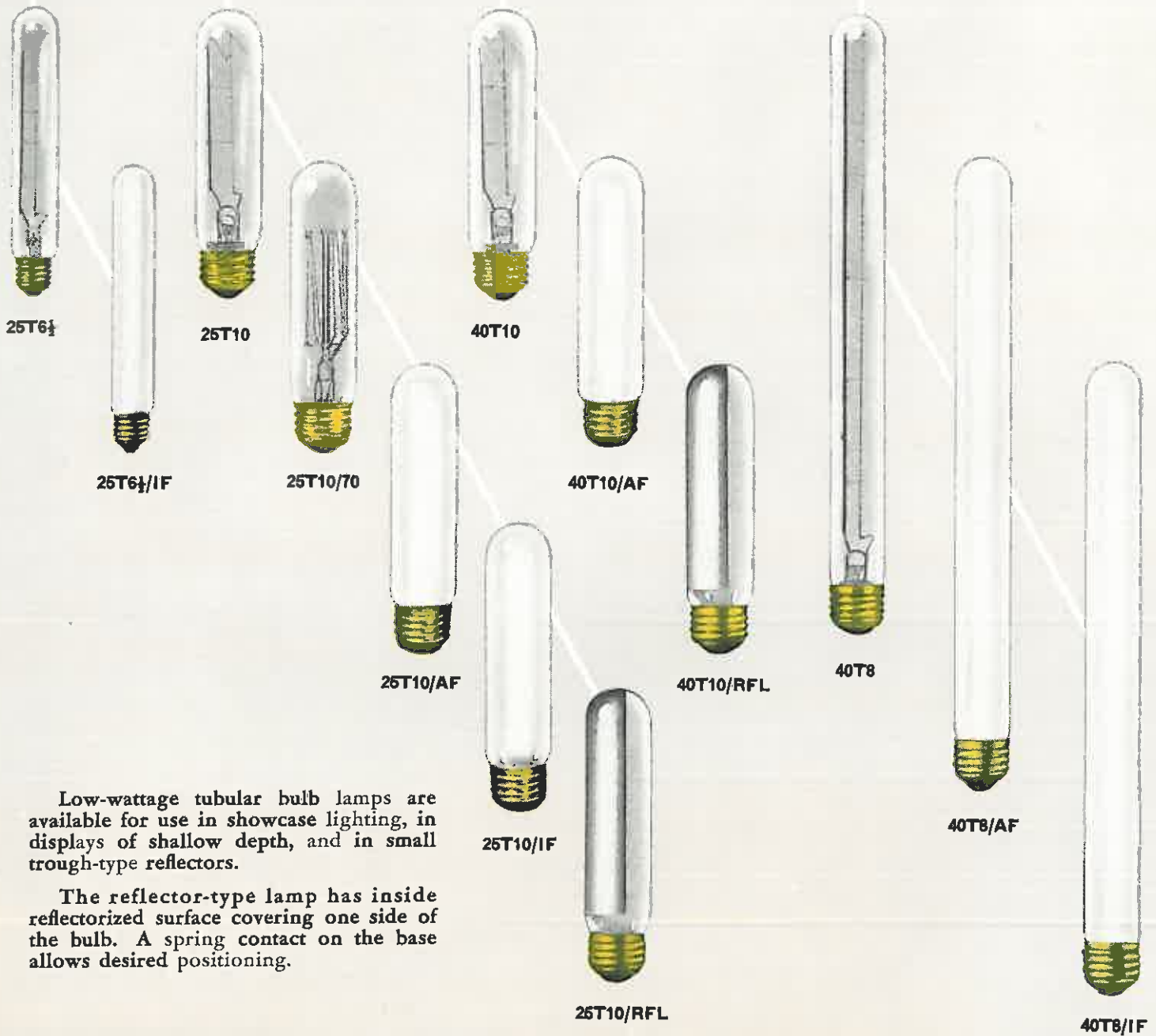
Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovrh. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Inht. Lumens
HIGH VOLTAGE LAMPS													
230-250 Volts unless otherwise noted													
15	A-17	Med.	.....	I.F.	15A	\$0.19 T	6-120	1000	3 3/8	2 1/8	B	C-9	115
25	A-19	Med.	.....	I.F.	25A	.16 T	6-120	1000	3 1/8	2 1/8	B	C-17	220
50	A-19	Med.	.....	I.F.	50A	.16 T	6-120	1000	3 1/8	2 1/8	B	C-17	480
100	A-23	Med.	.....	I.F.	100A	.24 T	6-120	1000	6 1/4	4 3/8	C	C-7A	1250
100	A-23	Med.	275	I.F.	100A	.45 T	6-120	1000	6 1/4	4 3/8	C	C-7A	1100
100	A-23	Med.	300	I.F.	100A	.45 T	6-120	1000	6 1/4	4 3/8	C	C-7A	1100
200	PS-30	Med.	.....	Clear	200	.50 T	60	1000	8 1/4	6	C	C-9	3050
200	PS-30	Med.	.....	I.F.	200/IF	.55 T	60	1000	8 1/4	6	C	C-9	3050
200	PS-30	Med.	275	Clear	200	.85 T	60	1000	8 1/4	6	C	C-9	2600
200	PS-30	Med.	300	Clear	200	.85 T	60	1000	8 1/4	6	C	C-9	2600
300	PS-35	Med. Skt.	.....	Clear	300MS	.95 T	24	1000	9 1/8	7 1/4	C	C-7A	4850
300	PS-35	Mog.	.....	Clear	300	.85 T	24	1000	9 1/8	7	C	C-7A	4850
300	PS-35	Mog.	.....	I.F.	300/IF	.90 T	24	1000	9 1/8	7	C	C-7A	4850
500	PS-40	Mog.	.....	Clear	500	1.40 T	24	1000	9 3/8	7	C	C-7A	8800
500	PS-40	Mog.	.....	I.F.	500/IF	1.50 T	24	1000	9 3/8	7	C	C-7A	8800
750	PS-52	Mog.	.....	Clear	750	3.50 T	6	1000	13 1/4	9 1/4	C	C-7A	13900
750	PS-52	Mog.	.....	I.F.	750/IF	3.70 T	6	1000	13 1/4	9 1/4	C	C-7A	13600
1000	PS-52	Mog.	.....	Clear	1000	3.75 T	6	1000	13 1/4	9 1/4	C	C-7A	19100
1000	PS-52	Mog.	.....	I.F.	1000/IF	3.95 T	6	1000	13 1/4	9 1/4	C	C-7A	19100
1500	PS-52	Mog.	.....	Clear	1500	6.00 T	6	1000	13 1/4	9 1/4	C	C-7A	28500
MINE LAMPS													
50	A-19	Med.	275	I.F.	50A19	\$0.27 T	6-120	1000	3 1/8	2 1/8	B	C-17	460
50	A-19	Med.	275	Clear	50A19/35	.32 T	6-120	1000	3 1/8	2 1/8	B	C-17	460
50	A-19	Med.	300	I.F.	50A19	.27 T	6-120	1000	3 1/8	2 1/8	B	C-17	460
50	A-19	Med.	300	Clear	50A19/36	.32 T	6-120	1000	3 1/8	2 1/8	B	C-17	460

38 TUBULAR AND SHOW CASE LAMPS

T 6 1/2 25 WATTS T 10 25 WATTS

T 10 40 WATTS

T 8 40 WATTS



Low-wattage tubular bulb lamps are available for use in showcase lighting, in displays of shallow depth, and in small trough-type reflectors.

The reflector-type lamp has inside reflectorized surface covering one side of the bulb. A spring contact on the base allows desired positioning.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Class	Filament	Approx. Initt. Lumens
TUBULAR AND SHOWCASE LAMPS												
25	T-6 1/2	Inter.	Std.	Clear	25T6 1/2	\$0.38 T	60	1000	5 1/2	B	C-8	240
25	T-6 1/2	Inter.	Std.	I. F. Showcase	25T6 1/2/IF	.41 T	60	1000	5 1/2	B	C-8	245
25	T-10	Med.	Std.	Clear	25T10	.27 T	6-60	1000	5 5/8	B	C-8	255
25	T-10	Med.	Std.	Showcase	25T10/70	.32 T	6-60	1000	5 5/8	B	S-1	240
25	T-10	Med.	Std.	Allfirst Showcase	25T10/AF	.32 T	6-60	1000	5 5/8	B	C-8	...
25	T-10	Med.	Std.	I. F. Showcase	25T10/IF	.30 T	6-60	1000	5 5/8	B	C-8	250
25	T-10	Med.	Std.	Refl. Showcase	25T10/RFL	.65 T	6-60	1000	5 5/8	C	CC-8	230
40	T-8	Med.	Std.	Clear	40T8	.95 T	6-24	1000	11 1/8	B	C-23	410
40	T-8	Med.	Std.	Allfirst Showcase	40T8/AF	1.00 T	6-24	1000	11 1/8	B	C-23	...
40	T-8	Med.	Std.	I. F. Showcase	40T8/IF	.98 T	6-24	1000	11 1/8	B	C-23	405
40	T-10	Med.	Std.	Clear	40T10	.33 T	6-60	1000	5 5/8	B	C-8	425
40	T-10	Med.	Std.	Allfirst Showcase	40T10/AF	.38 T	6-60	1000	5 5/8	B	C-8	...
40	T-10	Med.	Std.	Refl. Showcase	40T10/RFL	.65 T	6-60	1000	5 5/8	C	CC-8	420

30 and 60 WATTS
40 WATTS


L30
L60

L30/IF
L60/IF

L30/MB
L60/MB

L30/EM
L60/EM

L30/O
L60/O

L30/SPK
L60/SPK

L30/ST
L60/ST

L30/W
L60/W

L30/R



L40

L40/IF

L40/MB

L40/EM

L40/O

L40/SPK

L40/ST

L40/W

L40/R

These tubular incandescent lamps have contact caps at each end of the bulb instead of the conventional screw base. The filament runs through the tube with each end attached to the contact cap. Specially designed sockets or lamp-holders fit over each end of the lamp to hold it in place.

Lumiline lamps give a continuous line of light

making them well suited for built-in lighting effects where space limitation is a factor such as in displays, niches, small coves, signs, mirrors, paintings and luminous panels.

The outside white and colored finishes are not recommended for outdoor service when exposed to moisture and other detrimental weather conditions.

Lamps shown approximately 1/5 actual size.

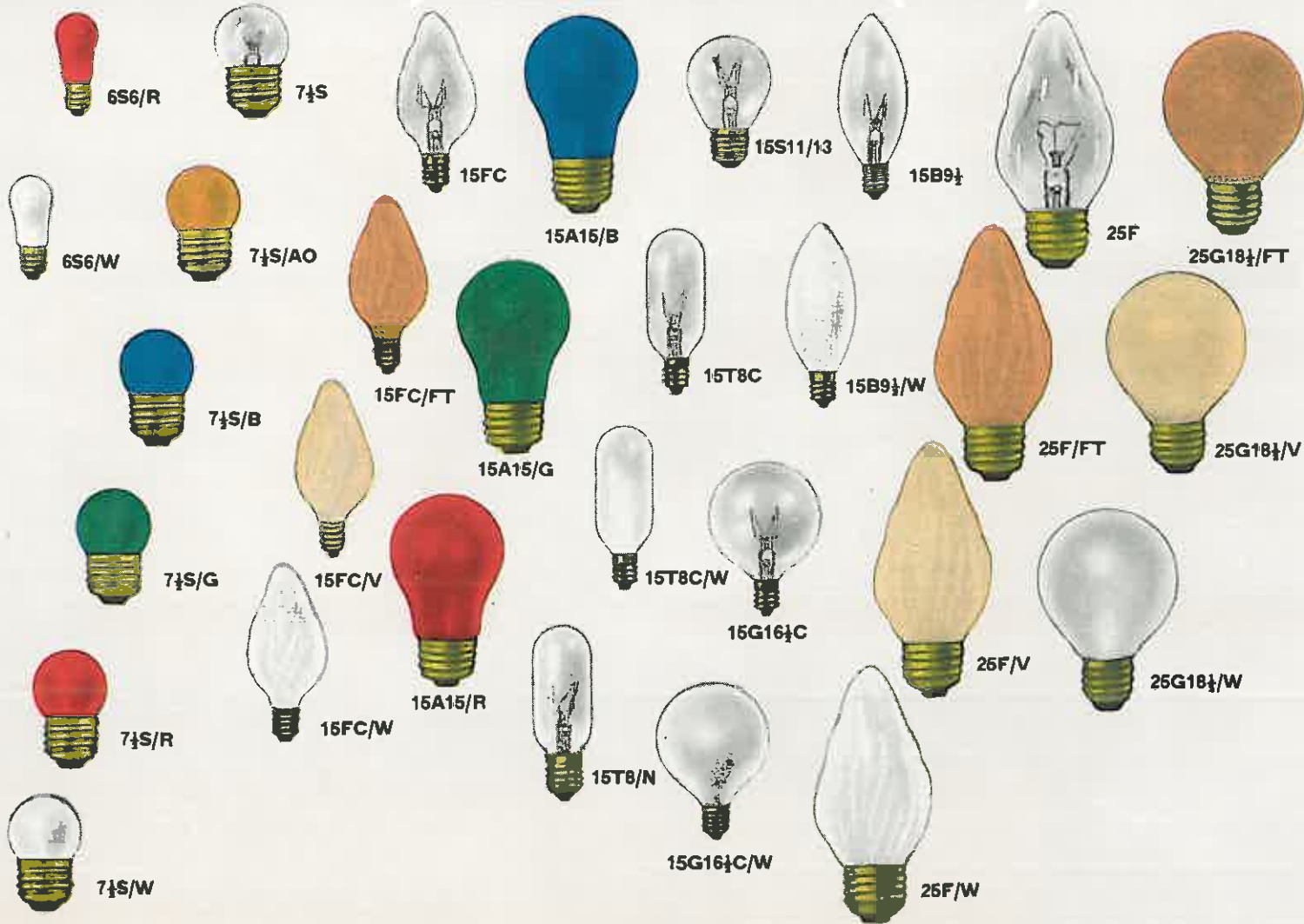
Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovt. Lgth.	Class	Filament	Approx. Initt. Lumens
LUMILINE LAMPS												
30	T-8	Disc	Std.	Clear	L30	\$0.95 T	6-24	1500	17 3/4	B	C-8	250
				I.F.	L30/IF	.95 T	6-24	1500	17 3/4	B	C-8	245
				Mnlg. Bl.	L30/MB	1.05 T	6-24	1500	17 3/4	B	C-8	
				Emerald	L30/EM	1.05 T	6-24	1500	17 3/4	B	C-8	
				Orange	L30/O	1.05 T	6-24	1500	17 3/4	B	C-8	
				Surprise Pink	L30/SPK	1.05 T	6-24	1500	17 3/4	B	C-8	
				Straw	L30/ST	1.05 T	6-24	1500	17 3/4	B	C-8	
				White	L30/W	1.05 T	6-24	1500	17 3/4	B	C-8	
				Red	L30/R	1.05 T	6-24	1500	17 3/4	B	C-8	
40	T-8	Disc	Std.	Clear	L40	.83 T	6-24	1500	11 3/4	B	C-8	350
				I.F.	L40/IF	.83 T	6-24	1500	11 3/4	B	C-8	345
				Mnlg. Bl.	L40/MB	.93 T	6-24	1500	11 3/4	B	C-8	
				Emerald	L40/EM	.93 T	6-24	1500	11 3/4	B	C-8	
				Orange	L40/O	.93 T	6-24	1500	11 3/4	B	C-8	
				Surprise Pink	L40/SPK	.93 T	6-24	1500	11 3/4	B	C-8	
				Straw	L40/ST	.93 T	6-24	1500	11 3/4	B	C-8	
				White	L40/W	.93 T	6-24	1500	11 3/4	B	C-8	
				Red	L40/R	.95 T	6-24	1500	11 3/4	B	C-8	
60	T-8	Disc	Std.	Clear	L60	.95 T	6-24	1500	17 3/4	B	C-8	560
				I.F.	L60/IF	.95 T	6-24	1500	17 3/4	B	C-8	550
				Mnlg. Bl.	L60/MB	1.05 T	6-24	1500	17 3/4	B	C-8	
				Emerald	L60/EM	1.05 T	6-24	1500	17 3/4	B	C-8	
				Orange	L60/O	1.05 T	6-24	1500	17 3/4	B	C-8	
				Surprise Pink	L60/SPK	1.05 T	6-24	1500	17 3/4	B	C-8	
				Straw	L60/ST	1.05 T	6-24	1500	17 3/4	B	C-8	
				White	L60/W	1.05 T	6-24	1500	17 3/4	B	C-8	

CLEAR AND OUTSI

6 WATTS

7½ WATTS

15 WATTS



These lamps are adapted to many decorative and ornamental uses in homes, theatres, clubs, lobbies, foyers and public buildings where the bulb shape and size is related to the design of the luminaire or the particular application. Outside coated lamps are not recommended for outdoor use.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Owl. Lgth.	Class	Filament	Approx. Init. Lumens
CLEAR AND OUTSIDE COATED LAMPS												
3	S-6	Cand.	Std.	Clear	3S6/5	\$0.25 T	10-120	3000	1 3/8	B	C-7A	12
6	S-6	Cand.	Std.	Clear	6S6	.16 T	10-120	1500	1 3/8	B	C-7A	40
6	S-6	Cand.	Std.	OC-Red	6S6/R	.24 T	10-120	1500	1 3/8	B	C-7A	.....
6	S-6	Cand.	Std.	OC-White	6S6/W	.21 T	10-120	1500	1 3/8	B	C-7A	.....
7½	S-11	Med.	Std.	Clear	7½S	.11 T	6-120	1400	2 1/4	B	C-7A	52
				OC-AmOr	7½S/AO	.11 T	6-120	1400	2 1/4	B	C-7A	.....
				OC-Blue	7½S/B	.11 T	6-120	1400	2 1/4	B	C-7A	.....
				OC-Green	7½S/G	.11 T	6-120	1400	2 1/4	B	C-7A	.....
				OC-Red	7½S/R	.11 T	6-120	1400	2 1/4	B	C-7A	.....
				OC-White	7½S/W	.11 T	6-120	1400	2 1/4	B	C-7A	.....
10	S-11	Inter.	Std.	Clear	10S11N	.15 T	6-120	1500	2 1/8	B	C-7A	80
15	F-10	Cand.	Std.	Clear	15FC	.20 T	6-60	750	3 1/8	B	C-7A	140
				OC-Ft	15FC/FT	.20 T	6-60	750	3 1/8	B	C-7A	.....
				OC-Ivory	15FC/V	.20 T	6-60	750	3 1/8	B	C-7A	.....
				OC-White	15FC/W	.20 T	6-60	750	3 1/8	B	C-7A	.....
				OC-Blue	15A15/B	.11 T	6-120	1200	3 1/8	B	C-9	.....
15	A-15	Med.	Std.	OC-Green	15A15/G	.11 T	6-120	1200	3 1/8	B	C-9	.....
				OC-Red	15A15/R	.11 T	6-120	1200	3 1/8	B	C-9	.....
				OC-White	15A15/W	.11 T	6-120	1200	3 1/8	B	C-9	.....

DE COATED LAMPS

25 WATTS

40 WATTS

60 WATTS



Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovt. Lgth.	Clear	Filament	Approx. Initt. Lumens
CLEAR AND OUTSIDE COATED LAMPS												
15	S-11	Cand.	Std.	Clear	15S11/13	\$0.35 T	6-120	750	2 3/4	B	C-7A	140
15	T-8	Cand.	Std.	Clear	15T8C	.35 T	6-60	750	3 1/4	B	C-7A	140
		Cand.	Std.	OC-White	15T8C/W	.35 T	6-60	750	3 1/4	B	C-7A	.....
		Inter.	Std.	Clear	15T8/N	.45 T	6-60	750	3 3/4	B	C-7A	.....
15	B-9 1/2	Cand.	Std.	Clear	15B9 1/2	.40 T	6-60	750	3 3/4	B	C-7A	.....
15	B-9 1/2	Cand.	Std.	OC-White	15B9 1/2/W	.40 T	6-60	750	3 3/4	B	C-7A	.....
15	G-16 1/2	Cand.	Std.	Clear	15G16 1/2 C	.35 T	6-60	750	3	B	C-7A	140
		Cand.	Std.	OC-White	15G16 1/2 C/W	.35 T	6-60	750	3	B	C-7A	.....
25	F-15	Med.	Std.	Clear	25F	.16 T	6-120	750	4 1/2	B	C-9	260
				OC-Ft	25F/FT	.16 T	6-120	750	4 1/2	B	C-9	.....
				OC-Ivory	25F/V	.16 T	6-120	750	4 1/2	B	C-9	.....
				OC-White	25F/W	.16 T	6-120	750	4 1/2	B	C-9	.....
25	G-18 1/2	Med.	Std.	OC-Fmtnt	25G18 1/2/FT	.30 T	6-120	750	3 3/4	B	C-9	.....
				OC-Ivory	25G18 1/2/V	.30 T	6-120	750	3 3/4	B	C-9	.....
				OC-White	25G18 1/2/W	.30 T	6-120	750	3 3/4	B	C-9	.....
25	G-25	Med.	Std.	Clear	25G25	.35 T	6-60	750	4 1/2	B	C-9	260
				OC-Fmtnt	25G25/FT	.35 T	6-60	750	4 1/2	B	C-9	.....
				OC-Ivory	25G25/V	.35 T	6-60	750	4 1/2	B	C-9	.....
				OC-White	25G25/W	.35 T	6-60	750	4 1/2	B	C-9	.....
25	A-19	Med.	Std.	OC-AmOr	25A/OAO	.16 T	6-120	1000	3	B	C-9	.....
				OC-Blue	25A/OB	.16 T	6-120	1000	3	B	C-9	.....
				OC-Fmtnt	25A/OFT	.16 T	6-120	1000	3	B	C-9	.....
				OC-Green	25A/OG	.16 T	6-120	1000	3	B	C-9	.....
				OC-Ivory	25A/OV	.16 T	6-120	1000	3	B	C-9	.....
				OC-Red	25A/OR	.16 T	6-120	1000	3	B	C-9	.....
40	G-25	Med.	Std.	OC-Fmtnt	40G/FT	.35 T	6-60	750	4 1/2	B	C-9	.....
				OC-Ivory	40G/V	.35 T	6-60	750	4 1/2	B	C-9	.....
				OC-White	40G/W	.35 T	6-60	750	4 1/2	B	C-9	.....
60	A-21	Med.	Std.	OC-Amber	60A21/AO	.25 T	6-120	1000	4 1/2	C	C-9	.....
				Orange								
				OC-Blue	60A21/B	.25 T	6-120	1000	4 1/2	C	C-9	.....
				OC-Fmtnt	60A21/FT	.25 T	6-120	1000	4 1/2	C	C-9	.....
				OC-Green	60A21/G	.25 T	6-120	1000	4 1/2	C	C-9	.....
				OC-Ivory	60A21/V	.25 T	6-120	1000	4 1/2	C	C-9	.....
				OC-Old								
				Rose	60A21/RO	.25 T	6-120	1000	4 1/2	C	C-9	.....
				OC-Red	60A21/R	.25 T	6-120	1000	4 1/2	C	C-9	.....
				OC-Yellow	60A21/Y	.25 T	6-120	1000	4 1/2	C	C-9	.....



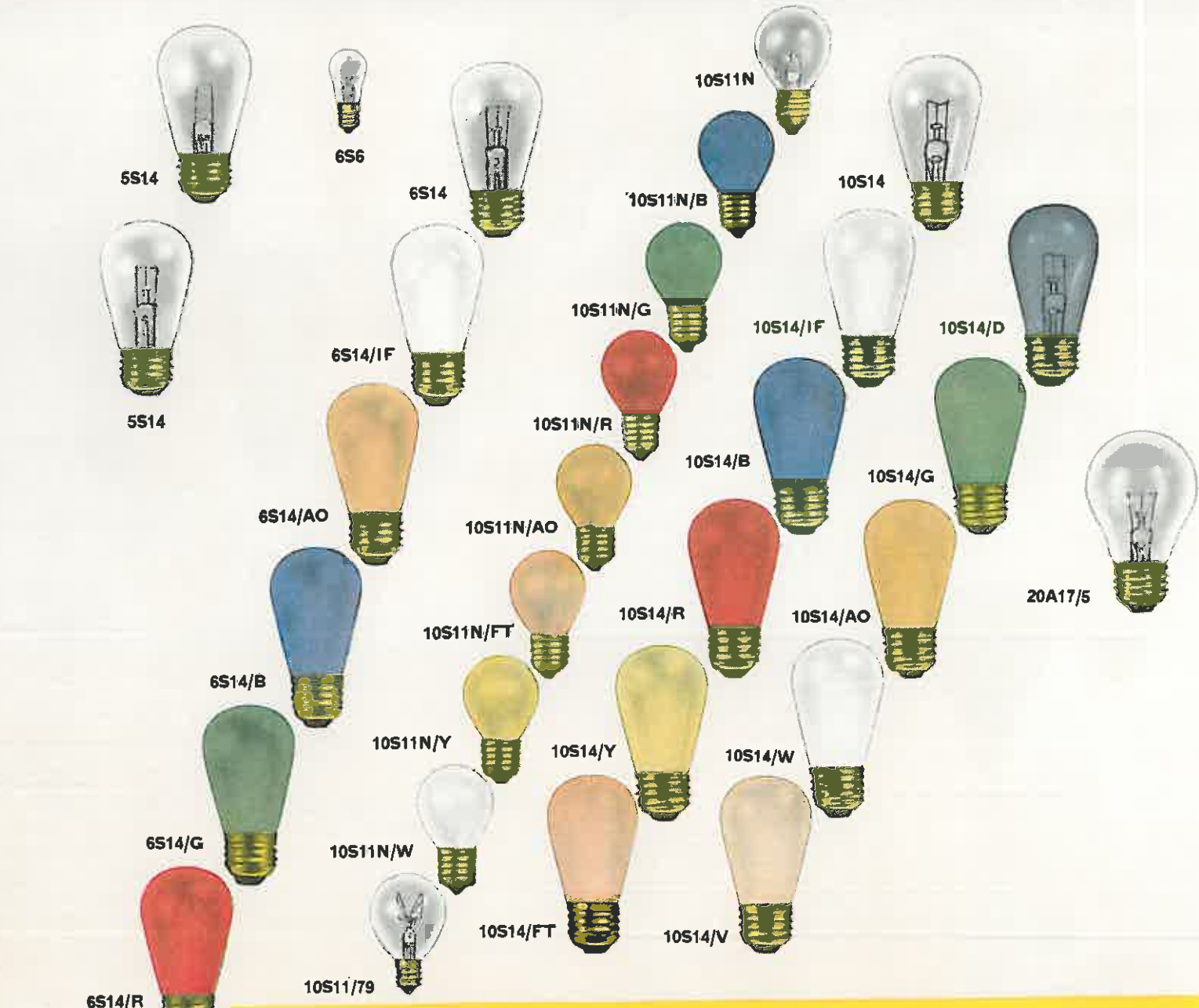
5 WATTS

6 WATTS

6 WATTS

10 WATTS

20 WATTS



Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cnt. Lgth.	Class	Filament	Approx. Initt. Lumens
CLEAR, INSIDE FROSTED AND COLORED LAMPS													
5	S-14	Med.	6	Clear Sign	5S14	\$0.40 T	6-120	1000	3 1/2	...	C	C-6	48
5	S-14	Med.	12	Sign	5S14	.27 T	6-120	1500	3 1/2	2 1/2	B	C-6	45
5	S-14	Med.	60	Sign	5S14	.27 T	6-120	1500	3 1/2	2 1/2	B	C-9	39
6	S-14	Med.	Std.	Clear	6S14	.16 T	6-120	1500	3 1/2	2 1/2	B	C-9	38
				I.F.	6S14/IF	.16 T	6-120	1500	3 1/2	2 1/2	B	C-9	37
				IC-AmOr	6S14/AO	.21 T	6-120	1500	3 1/2	...	B	C-9	...
				IC-Blue	6S14/B	.21 T	6-120	1500	3 1/2	...	B	C-9	...
				IC-Green	6S14/G	.21 T	6-120	1500	3 1/2	...	B	C-9	...
				IC-Red	6S14/R	.21 T	6-120	1500	3 1/2	...	B	C-9	...
				IC-Yellow	6S14/Y	.21 T	6-120	1500	3 1/2	...	B	C-9	...
				IC-White	6S14/W	.21 T	6-120	1500	3 1/2	...	B	C-9	...
10	S-11	Inter.	Std.	Clear	10S11N	.15 T	6-120	1500	2 1/2	1 3/8	B	C-7A	80
				IC-Blue	10S11N/B	.20 T	6-120	1500	2 1/2	...	B	C-7A	...
				IC-Green	10S11N/G	.20 T	6-120	1500	2 1/2	...	B	C-7A	...
				IC-Red	10S11N/R	.20 T	6-120	1500	2 1/2	...	B	C-7A	...
				IC-AmOr	10S11N/AO	.20 T	6-120	1500	2 1/2	...	B	C-7A	...

25 WATTS

40 WATTS



25A/FT



25A/RO



40A/AO



40A/B



40A/FT



40A/RO



25A/AO



25A/Y



40A/G



40A/V



40A/R



40A/Y



25A/V



25A/B
25A/CB



25A/G
25A/CG



25A/R
25A/CR

Inside-colored lamps are used in exposed-lamp signs and colorful displays and many decorative applications such as in covers, luminous panels, etc. Color may be obtained also by using accessories such as color hoods or roundels on the clear or inside frosted types.

For enclosed lamp signs and luminous architectural displays where lamps are protected from rain and snow, the full range of general service lamps is applicable.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pks. Quan.	Avg. Life	Max. Ovrh. Lgh.	Avg. Lgt. Cntr. Lgh.	Class	Filament	Approx. Initt. Lumens
CLEAR, INSIDE FROSTED AND COLORED LAMPS													
10	S-11	Inter.	Std.	IC-Fmtnt	10S11N/FT	\$0.20 T	6-120	1500	2 1/2	2 1/2	B	C-7A	.....
				IC-Yellow	10S11N/Y	.20 T	6-120	1500	2 1/2	2 1/2	B	C-7A	.....
				IC-White	10S11N/W	.20 T	6-120	1500	2 1/2	2 1/2	B	C-7A	.....
10	S-11	Cand.	Std.	Clear	10S11/79	.25 T	6-120	1500	2 1/2	1 3/8	B	C-7A	.....
10	S-14	Med.	Std.	Clear	10S14	.14 T	6-120	1500	3 1/2	2 1/2	B	C-9	79
				I.F.	10S14/IF	.14 T	6-120	1500	3 1/2	2 1/2	B	C-9	78
				Cl. Dyigl.	10S14/D	.30 T	6-120	1500	3 1/2	2 1/2	B	C-9	51
				IC-Blue	10S14/B	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-Green	10S14/G	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-Red	10S14/R	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-AmOr	10S14/AO	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-Yellow	10S14/Y	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-White	10S14/W	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-Fmtnt	10S14/FT	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
				IC-Ivory	10S14/V	.19 T	6-120	1500	3 1/2	2 1/2	B	C-9	.....
20	A-17	Med.	Std.	Flashing	20A17/5	.20 T	6-120	1000	3 3/8	2 1/2	C	C-9	140
25	A-19	Med.	Std.	IC-AmOr	25A/AO	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-Fmtnt	25A/FT	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-Ivory	25A/V	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-Yellow	25A/Y	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-O. Rose	25A/RO	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-Blue	25A/B	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-Green	25A/G	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				IC-Red	25A/R	.19 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				En. Blue	25A/CB	.16 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				En. Green	25A/CG	.16 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
				En. Red	25A/CR	.16 T	6-120	1000	3 1/2	2 1/2	B	C-9	.....
40	A-21	Med.	Std.	I.F.	40A21	.16 T	6-120	1000	4 1/2	2 3/8	B	C-9	430
				IC-AmOr	40A/AO	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-Blue	40A/B	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-Fmtnt	40A/FT	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-Green	40A/G	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-Ivory	40A/V	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-O. Rose	40A/RO	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-Red	40A/R	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....
				IC-Yellow	40A/Y	.21 T	6-120	1000	4 1/2	2 3/8	B	C-9	.....

NATURAL COLORED LAMPS

10 WATTS 25 WATTS 40 WATTS 60 WATTS



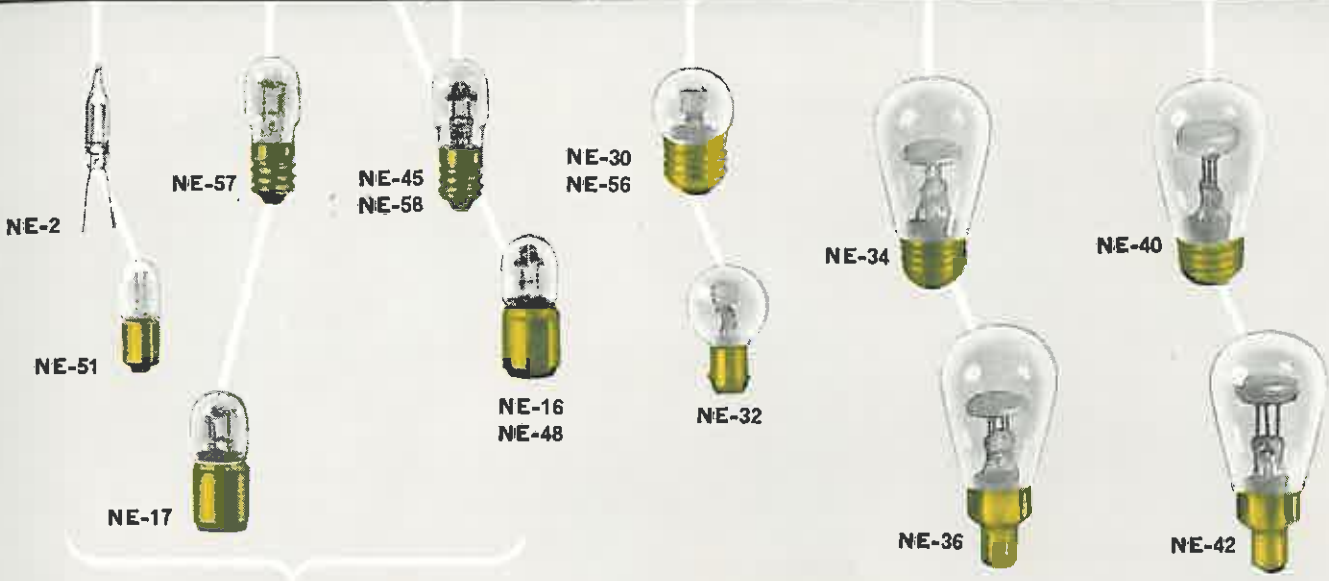
Lamps with natural colored glass bulbs are recommended for use where efficiency of color-light production and permanence are important.

Natural ruby and natural amber lamps are regularly furnished in the lighter shade. Dark ruby and dark amber lamps used in photographic work will be furnished only when definitely specified, at the same price.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament
NATURAL COLORED LAMPS												
10	S-14	Med.	Std.	Amber	10S14/NA	\$ 0.40 T	6-120	1500	3 1/4	.....	B	C-9
				Blue	10S14/NB	.40 T	6-120	1500	3 3/16	.....	B	C-9
				Green	10S14/NG	.50 T	6-120	1500	3 3/16	.....	B	C-9
				Ruby	10S14/NR	.50 T	6-120	1500	3 1/2	.....	B	C-9
25	A-19	Med.	Std.	Amber	25A/NA	.40 T	6-120	1000	3 3/16	.....	B	C-9
				Blue	25A/NB	.40 T	6-120	1000	3 3/16	.....	B	C-9
				Green	25A/NG	.50 T	6-120	1000	3 3/16	.....	B	C-9
				Ruby	25A/NR	.50 T	6-120	1000	3 3/16	.....	B	C-9
40	A-21	Med.	Std.	Amber	40A/NA	.40 T	6-120	1000	4 1/16	.....	B	C-9
				Blue	40A/NB	.40 T	6-120	1000	4 1/16	.....	B	C-9
				Green	40A/NG	.55 T	6-120	1000	4 1/16	.....	B	C-9
				Ruby	40A/NR	.55 T	6-120	1000	4 1/16	.....	B	C-9
60	A-21	Med.	Std.	Amber	60A21/NA	.45 T	6-120	1000	4 1/8	.....	C	C-9
				Blue	60A21/NB	.45 T	6-120	1000	4 1/8	.....	C	C-9
				Green	60A21/NG	.60 T	6-120	1000	4 1/8	.....	C	C-9
				Ruby	60A21/NR	.60 T	6-120	1000	4 1/8	.....	C	C-9

NEON GLOW LAMPS

1/25 WATT 1/4 WATT 1/4, 1/2 WATT 1 WATT 2 WATTS 3 WATTS



1/2 actual size

G-E NEON GLOW LAMPS

1. Distinctive orange-red glow — no colored cover glass needed.
2. Dependable long life — rated at 3,000 hours or more.
3. Very low current consumption.
4. Variety of sizes and wattages.
5. High resistance to vibration, shock.
6. Normally usable on A-C or D-C.
7. Screw base lamps work on 105-125-volt circuits without need for step-down transformers.
8. Practically no heat given off.

Screw Base Lamps

Required series resistor mounted within base. See values marked "IN" in column "Series Resistance." Lamps may be applied to higher circuit voltages by use of suitable external resistors — see table below.

TYPICAL G-E GLOW LAMP APPLICATIONS

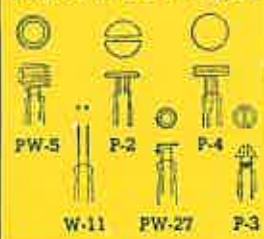
- | | | | | | |
|----------------------|------------------------|----------------------|-------------------------|------------------|----------------------|
| Alarms | Coffee Makers | Flat Irons | Indicators | Office Machines | Switch Plates |
| Automatic Controls | Coin Operated Machines | Fry Kettles | Industrial Controls | Pilot Lights | Switchboards |
| Beacons (Flashing) | Control Panels | Fuse Indicators | Instruments | Radio Equipment | Temperature Controls |
| Broilers | Cookers | Fuse Pullers | Intercommunication Sets | Ranges | Thermostats |
| Calculating Machines | Cord Sets | Glue Pots | Irons | Refrigerators | Toasters |
| Circuit Testers | Dial Lights | Grills | Ironing Machines | Safety Switches | Transformers |
| Clocks | Dish Washers | Heat Controls | Locators | Service Panels | Voltage Testers |
| Clothes Dryers | Drying Ovens | Heaters | Melting Pots | Solder Pots | Waffle Irons |
| | Exit Lights | Heating Pads | Night Lights | Speed Indicators | Wiring Devices |
| | Fence Controllers | Household Appliances | | Switches | |

Bayonet Base Lamps

External means must be provided to limit current to normal amount. External resistors, to be supplied by user, should be of the values marked "EX" in column "Series Resistance" for rated volts. See table below.

CLEAR NEON LAMPS										VALUE FOR EXTERNAL RESISTORS FOR CIRCUIT VOLTAGES IN THOUSANDS OF OHMS				OPERATION OF GLOW LAMPS ON HIGHER VOLTAGES
Average useful life, all types, approximately 3000 hours unless otherwise noted. Unit package quantity, 10, standard package quantity 100, unless otherwise noted.														Since Glow Lamps operate at low values of current it is practicable to apply them to higher voltage circuits using external resistors to absorb the added voltage. The table, left, gives the recommended values for four voltage ranges. The resistors must be suitable for the voltage applied and have capacity to dissipate several times the nominal lamp watts.
Watts	Bulb	Base	Volts	Lamp Order Abbrev.	List Price	Approx. Starting Voltage	Max. Overall Lgth.	Series Resist.	Electrode Shape	250-300V	300-375V	375-450V	450-600V	
1/25	T-2	Unbased	105-125	NE-2*(3)	\$0.08 T	85 90	1 1/8	200000-EX	W-11	750	1000	1200	1600	
1/25	T-3 1/2	S.C. Bay. Min.	105-125	NE-51	.10 T	65 90	1 1/8	200000-EX	W-11	750	1000	1200	1600	
1/4	T-4 1/2	Cand. Screw	105-125	NE-45	.40 T	65 90	1 1/2	30000-IN	P-3	82	120	150	200	
1/4	T-4 1/2	D.C. Bay. Cand.	105-125	NE-48	.38 T	65 90	1 1/2	30000-EX	P-3	110	150	180	240	
1/4	T-4 1/2	D.C. Bay. Cand.	105-125	NE-16(1)	.42 N	— (2)	1 1/2	30000-EX	P-3					
1/4	T-4 1/2	Cand. Screw	105-125	NE-57	.40 T	55 70	1 1/2	30000-IN	PW-27	82	120	150	200	
1/4	T-4 1/2	D.C. Bay. Cand.	105-125	NE-17	.45 T	55 70	1 1/2	30000-EX	PW-27	110	150	180	240	
1/2	T-4 1/2	Cand. Screw	210-250	NE-58	.40 T	65 90	1 1/2	100000-IN	P-3					
1	G-10	Med. Screw	105-125	NE-30	.40 T	60 85	2 1/8	4800-IN	PW-5	13	18	24	33	
1	G-10	D.C. Bay. Cand.	105-125	NE-32	.45 T	60 85	2 1/8	4800-EX	PW-5	18	24	30	39	
1	G-10	Med. Screw	210-250	NE-56	.40 T	60 85	2 1/8	40500-IN	PW-5					
2	S-14	Med. Screw	105-125	NE-34	.50 T	60 85	3 1/8	3500-IN	P-2	9.1	13	16	22	
2	S-14	Sk. D.C. Bay. Cand.	105-125	NE-36	.55 T	60 85	3 1/4	3500-EX	P-2	11	16	20	27	
3	S-14	Med. Screw	105-125	NE-40	.60 T	60 85	3 1/8	2200-IN	P-4	6.2	8.2	11	16	
3	S-14	Sk. D.C. Bay. Cand.	105-125	NE-42	.65 T	60 85	3 1/4	2200-EX	P-4	8.2	11	13	18	

ELECTRODE SHAPES



(1) Meets Ion-1A specifications for 991. Special marking JCG-991 supplied at small extra charge.
 (2) Designed for 67-87 volts, D.C. (D.C. operating voltage at 1.5 milliamperes, 53-65 volts.)
 (3) Unit package quantity 100, standard package, 1000.
 * Average useful life at 105-125 volts with 200,000 Ohms series resistance, in excess of 25,000 hours.

LAMPS FOR MOTION PICTURE

500 WATTS

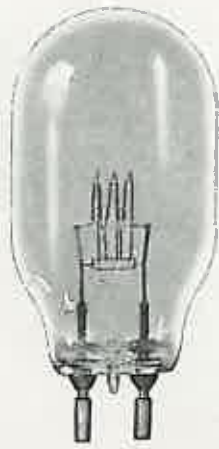
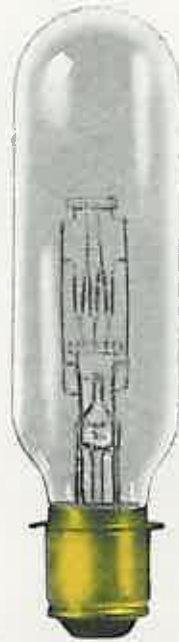
750 WATTS

1000 WATTS

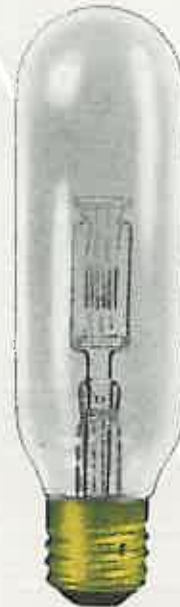
1000-1500 2000 WATTS



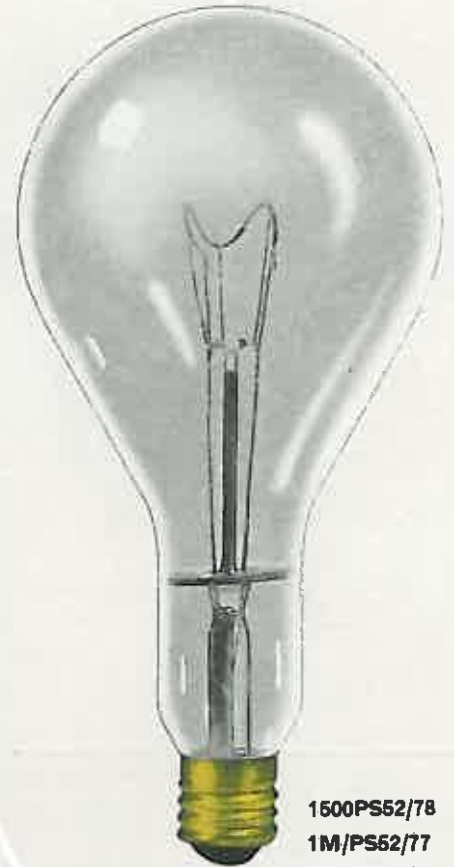
500PS25/5

750T24/16
750T24/13
750T24/14

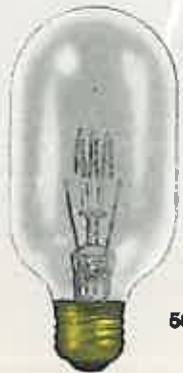
1M/T20/59



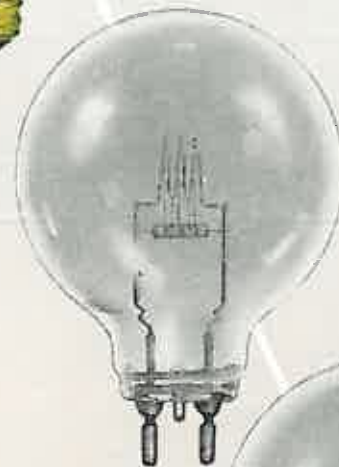
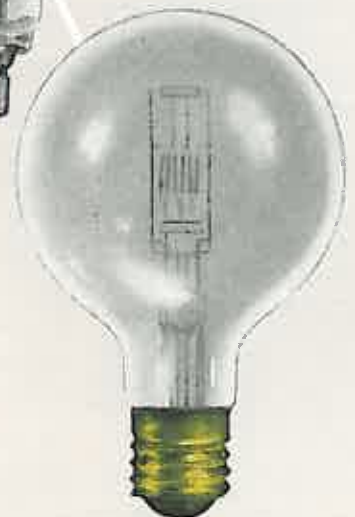
1M/T20/58

1500PS52/78
1M/PS52/77
2M/PS52/76

500T20/57

500T20/63
500T20/60
500T20/61

500T20/56

1M/G40/6
1M/G40/7
1M/G40/22

1M/G40/24

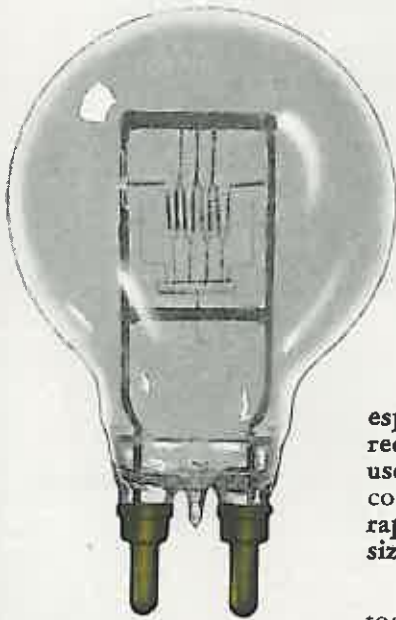
The design of lamps specifically for photographic service is concerned with actinic quality, that is, providing sources which are best adapted to the color response or sensitivity of several classes of film emulsions.

Some lamps are specified in terms of color temperature which serves as a basic rating for the various color materials. Thus several lines of lamps are made available for the requirements of commercial studios and portraiture as well as for motion picture photography.

Photographic efficiency and dependability in terms of unvarying spectral quality are of major concern to the photographer. Comparatively, life is of secondary importance, lamps of various sizes being matched for color temperature. The rated life necessarily varies with the wattage size to achieve the specified color temperature.

2000 WATTS

5000 WATTS

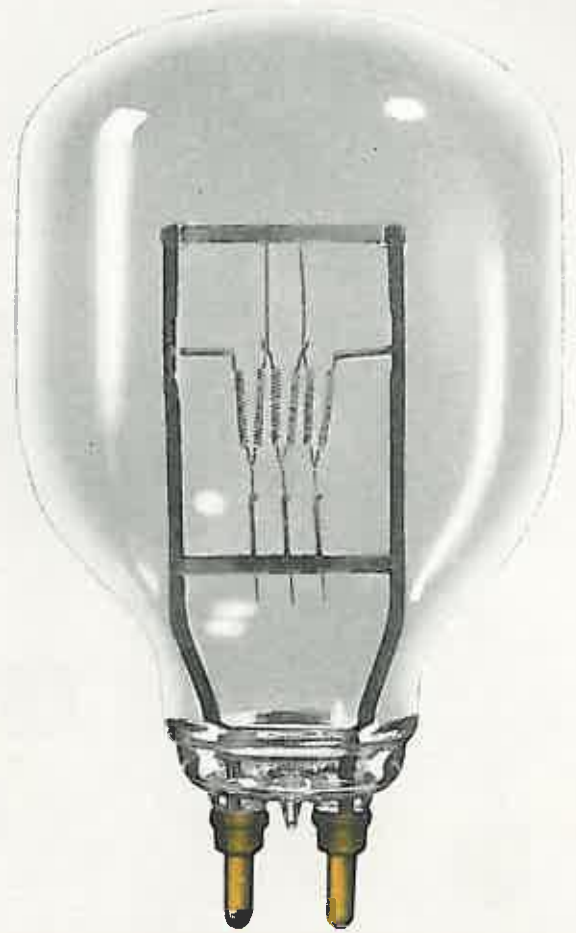


2M/G48/19
2M/G48/14
2M/G48/18

General Electric 3200°K lamps are especially designed to give light of correct color temperature for films widely used in the portrait, professional and commercial fields of color photography. They are available in bulb sizes to fit a wide range of equipment.

General Electric "CP" (color photography) lamps operating at 3350°K when used with the proper filters are for color films balanced to daylight. They are widely used for color photography in motion picture studios.

Lamps listed without color temperature specified, are for black and white photography. For these lamps the exact color temperature is not important. The 5M/T64/1 and 10M/G96/2 are used for both color and black and white photography.



5M/T64/1

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pks. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lst. Cntr. Lgth.	Class	Filament	Approx. Inlt. Lumens
PHOTOGRAPHIC LAMPS (Burn base down unless otherwise noted)													
500	PS-25	Med. Std.	3200°K	①	500PS25/5	\$0.70 P	24	60	6 1/8	5 1/4	C	C-9	13000
500	T-20	Med. Pl. Std.	3200°K		500T20/57	3.00 P	12	30	5 3/8	2 1/8	C	C-13	13000
500	T-20	Med. Std.	3200°K		500T20/56	2.75 P	12	30	5 3/8	3	C	C-13	.....
500	T-20	Med. Bip. Std.	3200°K		500T20/63	4.25 P	12	35	6 1/8	2 1/8	C	C-13	.....
750	T-24	Med. Bip. Std.	3200°K		750T24/16	5.00 P	12	30	6 1/8	2 1/8	C	C-13	20500
1000	T-20	Med. Pl. Std.	3200°K		1M/T20/59	6.15 P	12	35	9 1/8	3 1/8	C	C-13	27500
1000	T-20	Med. Std.	3200°K		1M/T20/58	5.75 P	12	35	9 1/8	4 1/8	C	C-13	.....
1000	PS-52	Med. Std.	3200°K	①	1M/PS52/77	4.00 P	6	75	13 1/8	9 1/8	C	C-7A	26000
1000	G-40	Med. Bip. Std.	3200°K	②	1M/G40/6	7.00 P	12	35	7 1/8	3 1/8	C	C-13	.....
1000	G-40	Med. Std.	3200°K	②	1M/G40/24	6.75 P	12	35	8	5 1/8	C	C-13	.....
1500	PS-52	Med. Std.	3200°K	①	1500PS52/78	5.50 P	6	100	13 1/8	9 1/8	C	C-7A	40000
2000	G-48	Med. Bip. Std.	3200°K		2M/G48/19	11.00 P	6	60	9 3/8	5	C	C-13	.....
2000	G-48	Med. Std.	3200°K		2M/G48/20	12.00 P	6	60	8 3/8	5 1/8	C	C-13	.....
5000	G-64	Med. Bip. Std.	3200°K		5M/G64/7	25.00 P	1	150	11 3/8	6 1/8	C	C-13	.....
500	T-20	Med. Bip. Std.	3350°K		500T20/60	4.25 P	12	8	6 1/8	2 1/8	C	C-13	.....
750	T-24	Med. Bip. Std.	3350°K		750T24/13	5.00 P	12	12	6 1/8	2 1/8	C	C-13	.....
1000	G-40	Med. Bip. Std.	3350°K	②	1M/G40/7	7.00 P	12	15	7 1/8	3 1/8	C	C-13	.....
2000	PS-52	Med. Std.	3350°K	①	2M/PS52/76	5.25 P	6	15	13 1/8	9 1/8	C	C-7A	.....
2000	G-48	Med. Bip. Std.	3350°K		2M/G48/14	10.00 P	6	25	9 3/8	5	C	C-13	.....
5000	T-64	Med. Bip. Std.	3350°K		5M/T64/1	23.00 P	1	75	13 3/8	6 1/8	C	C-13	164000
10M	G-96	Med. Bip. Std.	3350°K		10M/G96/2	65.00 P	1	75	17 3/8	10	C	C-13	325000
*500	T-20	Med. Bip. Std.	.....		500T20/61	4.25 P	12	50	6 1/8	2 1/8	C	C-13	.....
*750	T-24	Med. Bip. Std.	.....		750T24/14	5.00 P	12	50	6 1/8	2 1/8	C	C-13	.....
*1000	G-40	Med. Bip. Std.	.....	②	1M/G40/22	7.00 P	12	50	7 1/8	3 1/8	C	C-13	.....
*2000	G-48	Med. Bip. Std.	.....		2M/G48/18	10.00 P	6	100	9 1/8	5	C	C-13	.....

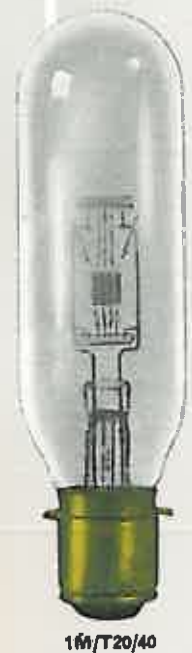
* Black and White Photography

① Burn any position

② Burn base down to horizontal

PROJECTION AND STEREOPTICON LAMPS

50 W 100 W 120W 140W 150W 200 W 300 W 500 W 750 W 1000 W 2100 W



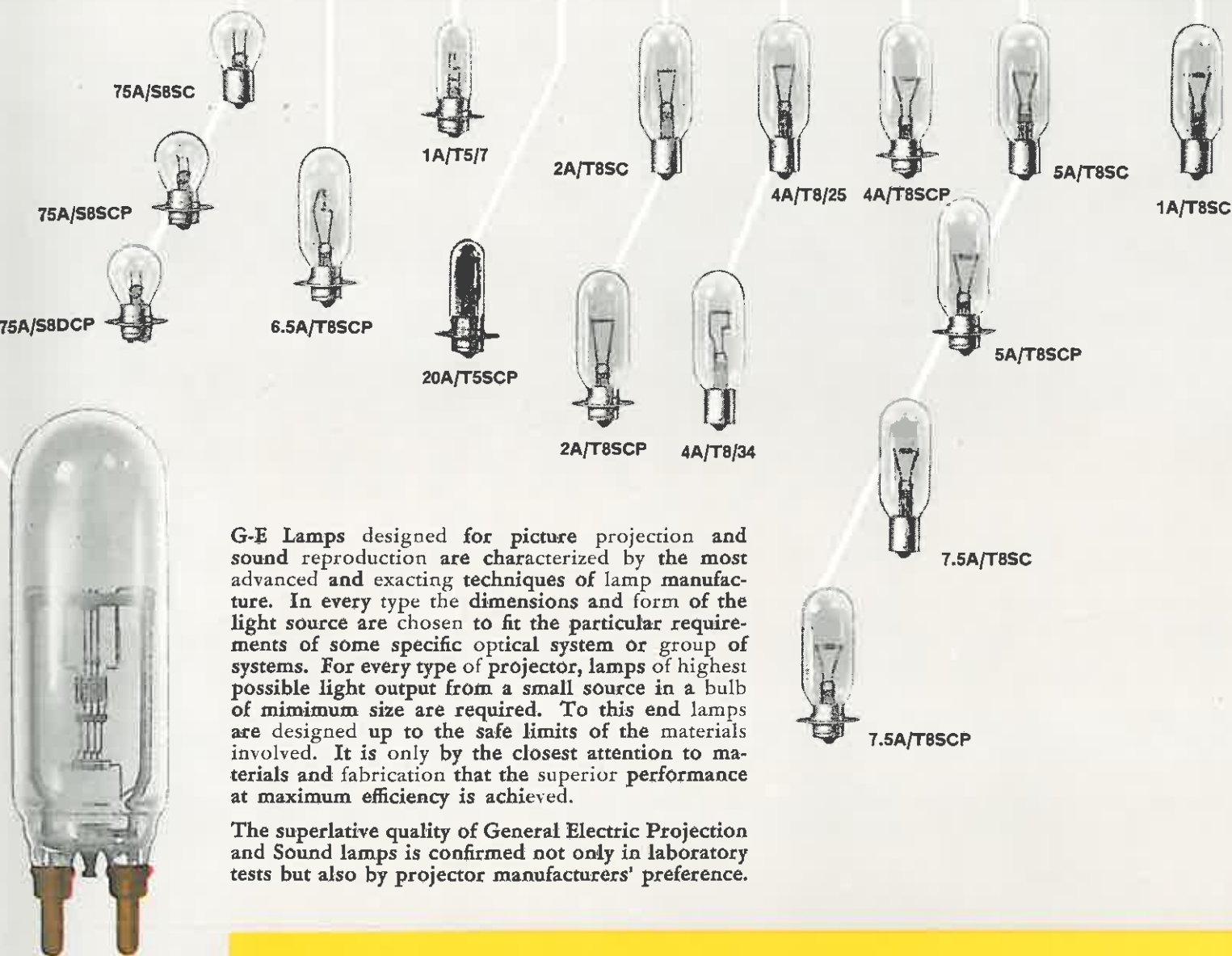
For Use In:
 Toy Projectors.
 8 MM Silent Motion Picture Projectors.
 16 MM Silent and Sound Motion Picture Projectors.
 35 MM Sound Motion Picture Projectors.

Watts	Bulb	Base	Volts	Burning Position	Lamp Order Abbreviation	List Price	Std. Pkg.	Avg. Life	M. O. Lgth.	L. C. Lgth.	Class	Filament	App. Initt Lumens
PROJECTION AND STEREOPTICON LAMPS													
50	T-8	D.C. Bay.	Std.	Any	50T8/22DC	\$0.95 T	24	50	3 1/2	1 3/8	C	CC-13	810
100	T-8	S.C. Bay.	Std.	Down	100T8SC	.85 T	24	50	3 1/8	1 3/8	C	CC-13	1920
100	T-8	S.C. Bay.	Std.	Down	100T8/108SC	.55 T	24	50	3 1/8	1 3/8	C	CC-2V	1950
150	T-8	S.C. Bay.	Std.	Down	150T8/70	1.30 T	24	25	3 3/8	1 3/8	C	2CC-8	3300
150	T-8	D.C. Bay.	Std.	Down	150T8/79	1.40 T	24	25	3 3/8	1 3/8	C	2CC-8	3300
200	T-8	S.C. Bay.	Std.	Down	200T8SC	1.40 T	24	25	3 3/8	1 3/8	C	2CC-8	4700
200	T-10	Med.	Std.	Down	200T10	2.15 T	24	50	5 1/2	3	C	CC-13	4250
200	T-10	Med. Pf.	Std.	Down	200T10P	2.15 T	24	50	5 3/4	2 3/8	C	CC-13	4250
250	T-14	Med. Pf.	Std.	Any	250T14/2	2.00 T	24	50	5 3/4	2 3/8	C	C-13	5600
300	T-8 1/2	S.C. Bay.	Std.	Down	300T8 1/2/15C	2.40 T	24	25	4 1/8	1 3/8	C	C-13D	.....
300	T-8 1/2	S.C. Bay.	Std.	Down	300T8 1/2/10	2.25 T	24	25	4 1/8	1 3/8	C	2CC-8	7200
300	T-10	Med. Pf.	Std.	Any	300T10P	2.70 T	24	25	5 3/4	2 3/8	C	2CC-8	.....
500	T-10	Med. Pf.	Std.	Down	500T10P	3.50 T	24	25	5 3/4	2 3/8	C	C-13D	.....
500	T-20	Med. Pf.	Std.	Down	500T20P	2.20 T	6	50	5 3/4	2 3/8	C	C-13	13200
500	T-20	Med.	Std.	Any	500T20	2.20 T	6	50	5 1/2	3	C	C-13	13200
750	T-12	Med. Pf.	Std.	Down	750T12P	4.10 T	24	25	5 3/4	2 3/8	C	C-13D	.....
				Down	750T12/24	4.10 T	24	10	5 3/4	2 3/8	C	C-13D	.....
				Down	750T12/34	4.75 T	24	200	5 3/4	2 3/8	C	C-13D	.....
900	T-20	Mog.	30	Down	900T20	6.25 T	12	100	9 1/2	4 3/4	C	C-13	23500
1000	T-12	Med. Pf.	Std.	Down	1M/T12P	6.00 T	24	10	5 3/4	2 3/8	C	C-13D	.....
1000	T-20	Med. Pf.	Std.	Down	1M/T20MP	4.50 T	12	25	5 3/4	2 3/8	C	C-13D	28000
1000	T-20	Mog.	Std.	Down	1M/T20	4.75 T	12	50	9 1/2	4 3/4	C	C-13	28000
1000	T-20	Mog. Pf.	Std.	Down	1M/T20P	4.75 T	12	50	9 1/2	3 1/2	C	C-13	28000
1000	T-20	Mog. Pf.	Std.	Down	1M/T20/40	6.25 T	12	25	9 1/2	3 1/2	C	C-13D	28000
1500	T-20	Mog. Pf.	Std.	Down	1500T20/39	9.75 T	12	25	9 1/2	3 1/4	C	C-13D	.....
2100	T-24	Mog. Bip.	60	Down	2100T24/8	16.50 T	12	50	10 1/2	4	C	C-13D	.....

TOY PROJECTOR LAMPS													
50	S-11	D.C. Bay.	115-125	Down to Horizontal	50S11/DC	\$0.28 T	6-120	50	2 3/8	1 3/8	C	CC-2V	825
100	S-11	S.C. Bay.	115-125	Down to Horizontal	100S11SC	.38 T	6-120	25	2 3/8	1 3/8	C	CC-2V	2050
120	A-21	Med.	115-125	Any	120A21/49	.15 T	120	25	4 1/8	3 3/8	C	C-9	2700
140	T-10	Med.	115-125	Down	140T10/69	.25 T	60	25	5 3/4	3 3/8	C	C-9	3350

EXCITER LAMPS FOR SOUND REPRODUCTION 49

4 VOLTS 5 VOLTS 6 VOLTS 7 VOLTS 8 VOLTS 8½ VOLTS 9 VOLTS 10 VOLTS 27 VOLTS



G-E Lamps designed for picture projection and sound reproduction are characterized by the most advanced and exacting techniques of lamp manufacture. In every type the dimensions and form of the light source are chosen to fit the particular requirements of some specific optical system or group of systems. For every type of projector, lamps of highest possible light output from a small source in a bulb of minimum size are required. To this end lamps are designed up to the safe limits of the materials involved. It is only by the closest attention to materials and fabrication that the superior performance at maximum efficiency is achieved.

The superlative quality of General Electric Projection and Sound lamps is confirmed not only in laboratory tests but also by projector manufacturers' preference.

General Electric Lamp Agents have a complete directory of the proper lamps to use in any Projector—General Electric Lamp Dept. Bulletin LD-19, "Projection Lamp Guide."

Volts	Bulb	Base	Amps.	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovri. Lgh.	Avg. Lgt. Cnb. Lgh.	Class	Filament	Approx. Initt. Lumens
SOUND REPRODUCTION LAMPS													
4	S-8	S. C. Bay.	.75		75A/S8SC	\$0.45 N	10-100	50	2	1 1/4	C	C-6	32
4	S-8	S. C. Pf.	.75		75A/S8SCP	.55 N	10-100	50	2	1 1/4	C	C-6	32
4	S-8	D. C. Pf.	.75		75A/S8DCP	.55 N	10-100	50	2	1 1/4	C	C-6	32
5	T-8	S. C. Pf.	6.5		6.5A/T8SCP ①	.90 N	6-24	50	3 1/2	1 1/2	C	C-8	580
6	T-5	S. C. Pf.	1.		1A/T5/7	.85 N	10-100	100	2 1/2	1 1/2	C	C-8	70
7	T-5	S. C. Pf.	.20		20A/T5SCP	.75 N	10-100	50	2 1/2	1 1/2	B	C-8	15
8	T-8	S. C. Bay.	2		2A/T8SC ①	.60 N	6-24	...	3 1/2	1 1/4	C	C-6	160
8	T-8	S. C. Pf.	2		2A/T8SCP ①	.70 N	6-24	...	3 1/2	1 1/4	C	C-6	160
8.5	T-8	S. C. Bay.	4		4A/T8/25 ①	.60 N	6-24	100	3 1/2	1 1/4	C	C-6	680
8.5	T-8	S. C. Bay.	4		4A/T8/34 ②	.80 N	6-24	100	3 1/2	1 1/4	C	C-8	680
9	T-8	S. C. Pf.	4		4A/T8SCP ①	.85 N	6-24	500	3 1/2	1 1/4	C	C-6	580
10	T-8	S. C. Bay.	5		5A/T8SC ①	.60 N	6-24	100	3 1/2	1 1/4	C	C-6	1000
10	T-8	S. C. Pf.	5		5A/T8SCP ①	.70 N	6-24	100	3 1/2	1 1/4	C	C-6	1000
10	T-8	S. C. Bay.	7.5		7.5 A/T8SC ①	.60 N	6-24	100	3 1/2	1 1/4	C	C-6	1600
10	T-8	S. C. Pf.	7.5		7.5A/T8SCP ②	.70 N	6-24	100	3 1/2	1 1/4	C	C-6	1600
27	T-8	S. C. Bay.	1.		1A/T8SC ①	.75 N	6-24	100	3 1/2	1 1/4	C	CC-6	500
OTHER LAMPS LISTED BY VOLTS AND AMPERES													
60	S-11	Inter.	.50	Resis. Ballast	50A/S11N/W	.35 N	6-120	2000	2 1/2	1 1/4	C	CC-2V	...
30	A-19	Med.	1.	I.F. St. Ry.	1A/A19	.30 T	6-120	2000	3 1/2	2 1/2	C	C-2R	395
30	A-21	Med.	1.6	I.F. St. Ry.	1.6A/A21	.35 T	6-120	2000	4 1/2	2 1/2	C	C-2R	705
22	T-4	Cand.	.11	Switchboard	11A/T4C	.30 T	10-100	2000	1 1/2	1 1/2	B	C-2V	10

① Burn base down.

② Burn base down to horizontal.

ROUGH SERVICE LAMPS

50 WATTS

100 WATTS

150 WATTS

200 WATTS



50A/RS
50A19/RS



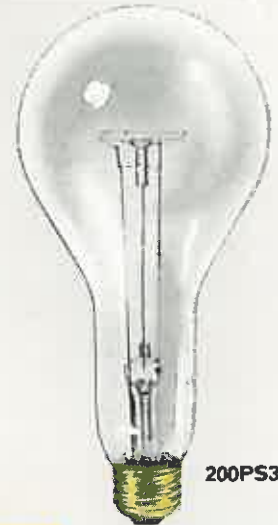
100A/RS



150/RS



200PS30/23



200PS30/24

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg.	Avg. Life	M. O. Lgth.	L. C. Lgth.	Class	Filament	Appr. Initt. Lumens
ROUGH SERVICE LAMPS													
50	A-19	Med.	30	I.F.	50A/RS	\$0.35 T	6-120	1000	3 1/4"	2 1/2"	B	C-9	505
50	A-19	Med.	75	I.F.	50A19/RS	.45 T	6-120	1000	3 1/4"	2 1/2"	B	C-9	500
50	A-19	Med.	Std.	I.F.	50A/RS	.25 T	6-120	1000	3 1/4"	2 1/2"	B	C-22	455
50	A-21	Med.	High	I.F.	50A/RS	.39 T	6-120	1000	3 1/4"	2 1/2"	B	C-22	435
100	A-23	Med.	Std.	I.F.	100A/RS	.35 T	6-120	1000	6 1/4"	4 1/4"	C	C-17	1200
100	A-23	Med.	High	I.F.	100A/RS	.45 T	6-120	1000	6 1/4"	4 1/4"	C	C-17	900
150	PS-25	Med.	Std.	I.F.	150/RS	.55 T	60	1000	6 1/4"	5 1/4"	C	C-17	2050
200	PS-30	Med.	Std.	I.F.	200PS30/23	.80 T	60	1000	8 1/4"	6"	C	C-9	3200
200	PS-30	Med.	Std.	Clear	200PS30/24	.80 T	60	1000	8 1/4"	6"	C	C-9	3200

Rough Service lamps are used extensively in extension cords in garages and work shops where a portable light is needed and in industrial plants, where they are subjected to excessive shocks. Filaments of lamps designed to withstand shocks and bumps are of special construction.

VIBRATION LAMPS

25 WATTS

50 WATTS

100 WATTS



25A/VS



50A/VS



100A23/28

These lamps are specially designed for use on high speed machinery and places where they are subjected to vibration of relatively high frequency. They are not as efficient as general service types and should be used only where they are required by service conditions.

Vibration and shock frequently accompany each other so it is often impossible to determine except by experiment whether Vibration and Rough Service lamps may be used interchangeably or which type will give better service in a particular application.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Initt. Lumens
VIBRATION LAMPS													
25	A-19	Med.	Std.	I.F.	25A/VS	\$0.25 T	6-120	1000	3 1/4"	2 1/2"	B	C-9	240
50	A-19	Med.	Std.	I.F.	50A/VS	.20 T	6-120	1000	3 1/4"	2 1/2"	B	C-9	555
100	A-23	Med.	Std.	I.F.	100A23/28	.35 T	6-120	1000	6 1/4"	4 1/4"	C	C-9	1300

5 WATTS
6 WATTS
15 WATTS
25 WATTS
50 WATTS
100 WATTS


5S14



6S6



15A



25A



25A/W



50A21



100A

These lamps are designed for operation on battery-generator sets as used on farms and in places where electric service is not available. Orders should specify "Country Home — 30 volts."

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. L. C. Lgth.	Class	Filament	Approx. Init. Lumens
COUNTRY HOME LAMPS													
5	S-14	Med.	30	Clear	5S14	\$0.32 T	6-120	1000	3 1/4	2 1/2	B	C-9	41
6	S-6	Cand.	30	Clear	6S6	.30 T	10-120	1500	1 1/2	1 1/2	B	C-2V	53
15	A-17	Med.	30	I.F.	15A	.20 T	6-120	1000	3 3/8	2 3/8	C	C-9	179
25	A-19	Med.	30	I.F.	25A	.20 T	6-120	1000	3 3/8	2 3/8	C	C-9	350
25	A-19	Med.	30	White	25A/W	.25 T	6-120	1000	3 3/8	2 3/8	C	C-9	350
50	A-21	Med.	30	I.F.	50A21	.20 T	6-120	1000	4 1/2	3 3/8	C	C-9	820
100	A-23	Med.	30	I.F.	100A	.33 T	6-120	1000	6 1/2	4 3/8	C	C-9	1850

6 AND 12 VOLT LAMPS

5 WATTS
10 WATTS
15 WATTS
25 WATTS
50 WATTS


5S14



10S14



15A



25A



50A21

Six- and 12-volt lamps in low-wattage sizes are used on small gas engines and wind-driven battery-generator outfits, and for automobile battery outfits as used on boats, house trailers and airplanes.

Low voltage lamps, because of their higher current for a given wattage, are more rugged, and in general more efficient than standard voltage lamps.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Init. Lumens
6- AND 12-VOLT LAMPS													
5	S-14	Med.	6	Clear	5S14	\$0.40 T	6-120	1000	3 1/4	2 1/2	C	C-6	48
5	S-14	Med.	12	Sign	5S14	.27 T	6-120	1500	3 1/4	2 1/2	B	C-6	45
10	S-14	Med.	6	Clear	10S14	.40 T	6-120	1000	3 3/8	2 3/8	C	C-6	115
15	A-17	Med.	6	I.F.	15A	.25 T	6-120	1000	3 3/8	2 3/8	C	C-6	190
15	A-17	Med.	12	I.F.	15A	.30 T	6-120	1000	3 3/8	2 3/8	C	C-6	190
25	A-19	Med.	6	I.F.	25A	.25 T	6-120	1000	3 3/8	2 3/8	C	C-6	350
25	A-19	Med.	12	I.F.	25A	.30 T	6-120	1000	3 3/8	2 3/8	C	C-6	360
50	A-21	Med.	6	I.F.	50A21	.35 T	6-120	1000	4 1/2	3 3/8	C	C-6	800
50	A-21	Med.	12	I.F.	50A21	.40 T	6-120	1000	4 1/2	3 3/8	C	C-6	785

TRAIN AND LOC

5 WATTS

6 WATTS

15 WATTS

25 WATTS

40 WATTS

50 WATTS

100 WATTS



5S14



6S6



6S6/NB



15A



25A



40T8 $\frac{1}{2}$ /IF



50A21



100A



25A/W



40A



50A21



25T8 $\frac{1}{2}$ /IF



50A19/R5

TRAIN LIGHTING

Train lighting lamps in general are available for operation on 30-, 34- or 60-volt direct current circuits. They are particularly designed to provide satisfactory service under vibration conditions. In order to insure satisfactory life, voltage regulating devices must be kept adjusted to operate them at their proper voltage. This means that the voltage at the lamp socket should correspond with that shown on the lamp marking.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovl. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Inhd. Lumens
Train Lighting													
5	S-14	Med.	30	Clear	5S14	\$0.32 T	6-120	1000	3 $\frac{1}{4}$	...	B	C-9	41
6	S-6	Cand.	30	Clear	6S6	.30 T	10-120	1500	1 $\frac{3}{4}$	...	B	C-2V	53
6	S-6	Cand.	30	Nat'l Blue	6S6/NB	.50 T	10-120	1500	1 $\frac{3}{4}$	...	B	C-2V	...
15	A-17	Med.	30	I.F.	15A	.20 T	6-120	1000	3 $\frac{3}{8}$	2 $\frac{3}{8}$	C	C-9	179
15	A-17	Med.	34	I.F.	15A	.24 T	6-120	1000	3 $\frac{3}{8}$	2 $\frac{3}{8}$	C	C-9	195
15	A-17	Med.	60	I.F.	15A	.20 T	6-120	1000	3 $\frac{3}{8}$	2 $\frac{3}{8}$	C	C-9	150
25	A-19	Med.	30	I.F.	25A	.20 T	6-120	1000	3 $\frac{11}{16}$	2 $\frac{1}{2}$	C	C-9	350
25	A-19	Med.	30	White	25A/W	.25 T	6-120	1000	3 $\frac{11}{16}$	2 $\frac{1}{2}$	C	C-9	...
25	A-19	Med.	34	I.F.	25A	.24 T	6-120	1000	3 $\frac{11}{16}$	2 $\frac{1}{2}$	C	C-9	390
25	A-19	Med.	34	White	25A/W	.29 T	6-120	1000	3 $\frac{11}{16}$	2 $\frac{1}{2}$	C	C-9	...
25	A-19	Med.	60	I.F.	25A	.20 T	6-120	1000	3 $\frac{11}{16}$	2 $\frac{1}{2}$	C	C-9	290
25	T-8 $\frac{1}{2}$	Med.	30-32	I.F.	25T8 $\frac{1}{2}$ /IF	.55 T	6-60	1000	5 $\frac{1}{2}$	...	C	C-8	...
40	T-8 $\frac{1}{2}$	Med.	30-32	I.F.	40T8 $\frac{1}{2}$ /IF	.65 T	6-60	1000	5 $\frac{1}{2}$	...	C	C-8	...
40	A-19	Med.	60-64	I.F.	40A	.30 T	6-120	1000	4 $\frac{1}{4}$	2 $\frac{3}{8}$	C	C-9	...
50	A-21	Med.	30	I.F.	50A21	.20 T	6-120	1000	4 $\frac{1}{4}$	3 $\frac{3}{8}$	C	C-9	820
50	A-21	Med.	34	I.F.	50A21	.24 T	6-120	1000	4 $\frac{1}{4}$	3 $\frac{3}{8}$	C	C-9	925
50	A-21	Med.	60	I.F.	50A21	.20 T	6-120	1000	4 $\frac{1}{4}$	3 $\frac{3}{8}$	C	C-9	710
100	A-23	Med.	30	I.F.	100A	.33 T	6-120	1000	6 $\frac{1}{4}$	4 $\frac{3}{8}$	C	C-9	1850
100	A-23	Med.	34	I.F.	100A	.37 T	6-120	1000	6 $\frac{1}{4}$	4 $\frac{3}{8}$	C	C-9	2000
100	A-23	Med.	60	I.F.	100A	.33 T	6-120	1000	6 $\frac{1}{4}$	4 $\frac{3}{8}$	C	C-9	1650

15 WATTS

100 WATTS

250 WATTS

480 WATTS



15S14/IF



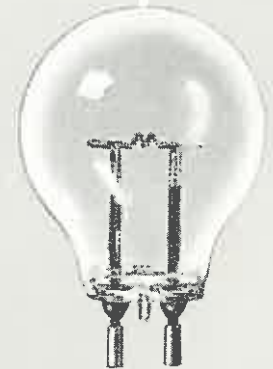
100A21/3



250P25



250P25/22



480G30

LOCOMOTIVE CAB LIGHTING

The 15S14 locomotive cab lamp in the inside frosted bulb is the standard lamp for use in gauge fixtures, reading lights, stack fixtures, headlight number cases and classification lamps. Its construction includes a special type of tungsten filament adequately supported to insure good service life. Efficiency, however, is slightly sacrificed in favor of mechanical strength.

LOCOMOTIVE HEADLIGHTING

A 100-watt clear bulb headlight represents current practice for use on switching locomotives. This size lamp when used in the customary reflector is sufficient to comply with operating regulations. They are available in 32-, 60- and 75- volt ratings.

Where locomotives operate on the main lines, the 250-watt, 32 volt, lamp with either the medium screw or medium prefocus base, has for years been the accepted standard. This lamp is also of special construction, consisting of a special tungsten alloy filament and double supports to provide protection against vibration.

Similar headlight lamps are available for use on Diesel-electric locomotives. They are available for use on 60-volt regulated circuits or unregulated circuits averaging 75 volts.

The medium prefocused base lamps are especially recommended since their use eliminates focusing each time lamps are replaced.

All locomotive headlight cases must be properly maintained in order to prevent rain or snow from entering the case door. Also the use of shock absorbing devices incorporated either in the socket mounting or in the case itself are highly recommended.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgh.	Avg. Lgt. Cntr. Lgh.	Class	Filament	Approx. Intl. Lumens
Locomotive Cab Lamps													
15	S-14	Med.	34	I.F. Loc. Cab.	15S14/IF	\$0.20 T	6-120	1000	3 3/4	2 1/2	B	C-9	139
25	A-17	Med.	60	I.F. (Diesel)	25A17/RS	.35 T	6-120	1000	3 3/4	2 1/2	B	C-9	.....
25	A-19	Med.	75	I.F. (Diesel)	25A	.40 T	6-120	1000	3 1/4	2 1/2	B	C-9	.....
50	A-19	Med.	60-64	I.F. (Diesel)	50A19/RS	.45 T	6-120	1000	3 1/4	2 1/2	B	C-9	.....
Locomotive Headlight Lamps*													
100	A-21	Med.	32	.....	100A21/3	.90 T	6-120	500	4 1/4	3	C	C-5	1570
100	A-21	Md. Pf.	60-65	Diesel	100A21/4P	1.75 T	120	500	4 1/4	2 3/4	C	C-5	.....
100	A-21	Md. Pf.	75	Diesel	100A21/7P	1.75 T	120	500	4 1/4	2 1/4	C	C-5	.....
250	P-25	Med.	32	.....	250P25	1.40 T	60	500	4 3/4	3	C	C-5A	4500
250	P-25	Md. Pf.	32	.....	250P25/22	1.65 T	60	500	5	2 3/4	C	C-5A	4500
250	P-25	Med.	60-65	Diesel	250P25	2.00 T	60	500	4 3/4	3	C	C-5	.....
250	P-25	Md. Pf.	75	Diesel	250P25P	2.25 T	60	500	5	2 3/4	C	C-5	.....
480	G-30	Md. Bip.	12	Diesel(Sig.)	480G30	8.75 T	24	500	5 3/4	2 3/4	C	CC-6	.....

* Base base down to horizontal socket in order.

* Base base down to horizontal socket within 45° of base up.

36 WATTS

56 WATTS

94 WATTS

36 WATTS

56 WATTS



36A/Ryh



56P25



94P25



36A/Ry



56A21



1A/A19



1.6A/A21

HEADLIGHTING—Headlight lamps are for operation in series with 4 lamps of corresponding wattage and voltage used elsewhere in the car.

CAR LIGHTING—5-In-Series Lamp—These vacuum lamps operate 5-in-series on the trolley voltage and are used for general illumination, destination signs, etc. Individual lamp voltage to the nearest 5-volt step is 1/5 of the average trolley voltage applied to the lamp circuit during the period in which the lamps are in use. The 36- and 56-watt lamps provide more satisfactory performance when operated in the base-up vertical position.

30-Volt Cutout Lamps—These lamps are gas-filled and are more efficient initially and throughout life than the 5-in-series lamp. The number of lamps required per circuit is determined by dividing the trolley circuit voltage by 30. Each lamp is equipped with an automatic short-circuiting element which cuts the lamp out of the circuit and prevents arcing when the lamp burns out. These lamps are rated in amperes instead of watts.

TRAFFIC SIGNAL LAMPS

40, 60, 67, and 100 WATTS



40A/TS
60A21/TS
67A21/40
100A21/TS

The traffic signal beam candlepowers recommended by the Institute of Traffic Engineers are based on the standard 60-watt signal lamps. The 67-watt lamp is equiva-

lent in light output to the 60-watt lamp but has longer life for group replacement.

The 100-watt lamp is used where there is high background brightness.

Watts	Bulb	Base	Volts	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lst. Cntr. Lgth.	Class	Filament	Approx. Init. Lumens
TRAFFIC SIGNAL LAMPS												
40	A-21	Med.	Std.	40A/TS	\$0.30 T	6-120	2000	4 1/16"	2 1/16"	C	C-9	360
60	A-21	Med.	Std.	60A21/TS	.25 T	6-120	2000	4 1/16"	2 1/16"	C	C-9	665
67	A-21	Med.	Std.	67A21/40	.30 T	6-120	3000	4 1/16"	2 1/16"	C	C-9	700
100	A-21	Med.	Std.	100A21/TS	.40 T	6-120	2000	4 1/16"	2 1/16"	C	C-9	1250

101 WATTS

151 WATTS

201 WATTS

301 WATTS



101A23



151PS25/18



201PS30



301PS35

SHOP AND YARD LIGHTING — ARC Resisting Lamps. These higher wattage lamps, designed to operate 5-in-series, are gas-filled and more efficient than vacuum lamps, and are recommended for illumination of shops and yards. The 101-watt lamp is also used for car lighting in totally-enclosing fixtures. Each lamp has incorporated in the stem a feature which tends to prevent arcing when filament burn-out occurs.

Trolleys, shops and yard circuits of street railways generally range from 525 to 625 volts. Lamps for this service are designed to operate 5-in-series on these voltages. The individual lamps therefore have designed voltages of from 105 to 125 volts. For identification purposes railway service lamps are rated in odd wattages to distinguish them from regular multiple lamps.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Ctr. Lgth.	Class	Filament	Approx. Initt. Lumens
STREET RAILWAY LAMPS													
Headlighting													
36	A-19	Med.	Std.	Cl. .342A	36A/Ryh	\$0.55 T	6-120	1000	3 1/8	2 1/8	B	C-5	375
56	P-25	Med.	Std.	Cl. .519A	56P25	.80 T	60	1000	4 3/8	2 1/4	B	C-5	555
94	P-25	Med.	Std.	Cl. .863A	94P25	1.00 T	60	1000	4 3/8	2 1/4	B	C-5	885
Car Lighting (5-In-Series)													
36	A-21	Med.	Std.	I.F. .342A	36A/Ry	.18 T	6-120	2000	4 1/8	2 3/8	B	C-9	365
56	A-21	Med.	Std.	I.F. .519A	56A21	.21 T	6-120	2000	4 1/8	2 3/8	B	C-9	620
Car Lighting (Cutout Lamps — 30 Volt)													
Amps.													
1	A-19	Med.	30	I.F.	1A/A19	.30 T	6-120	2000	3 1/8	2 1/8	C	C-2R	395
1.6	A-21	Med.	30	I.F.	1.6A/A21	.35 T	6-120	2000	4 1/8	2 3/8	C	C-2R	705
Shop and Yard Lighting (Arc Resisting)													
Watts													
101	A-23	Med.	Std.	I.F.	101A23	.40 T	6-120	1500	6 1/8	4 3/8	C	C-9	1150
151	PS-25	Med.	Std.	Clear	151PS25/18	.65 T	60	1500	6 1/8	5 3/8	C	C-9	1500
201	PS-30	Med.	Std.	Clear	201PS30	.75 T	60	1000	8 1/8	6	C	C-9	3100
301	PS-35	Mag.	Std.	Clear	301PS35	1.30 T	24	1000	9 3/8	7	C	C-9	5000

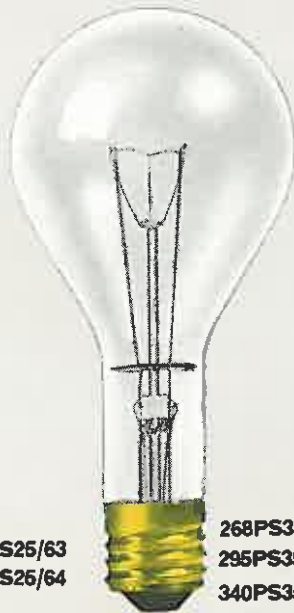
STREET LIGHT



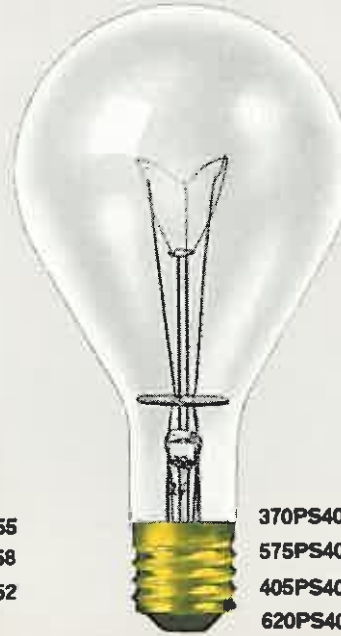
85A23/48
92A23/49



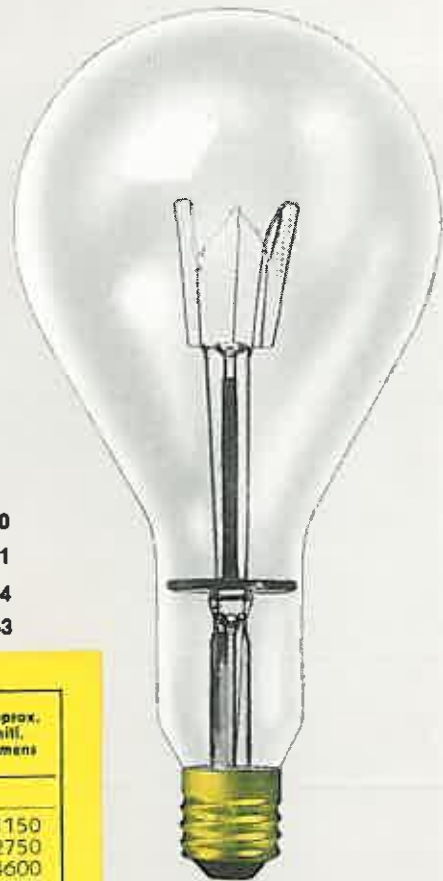
175PS25/63
189PS26/64



268PS35/55
295PS35/68
340PS35/52



370PS40/60
575PS40/51
405PS40/54
620PS40/53



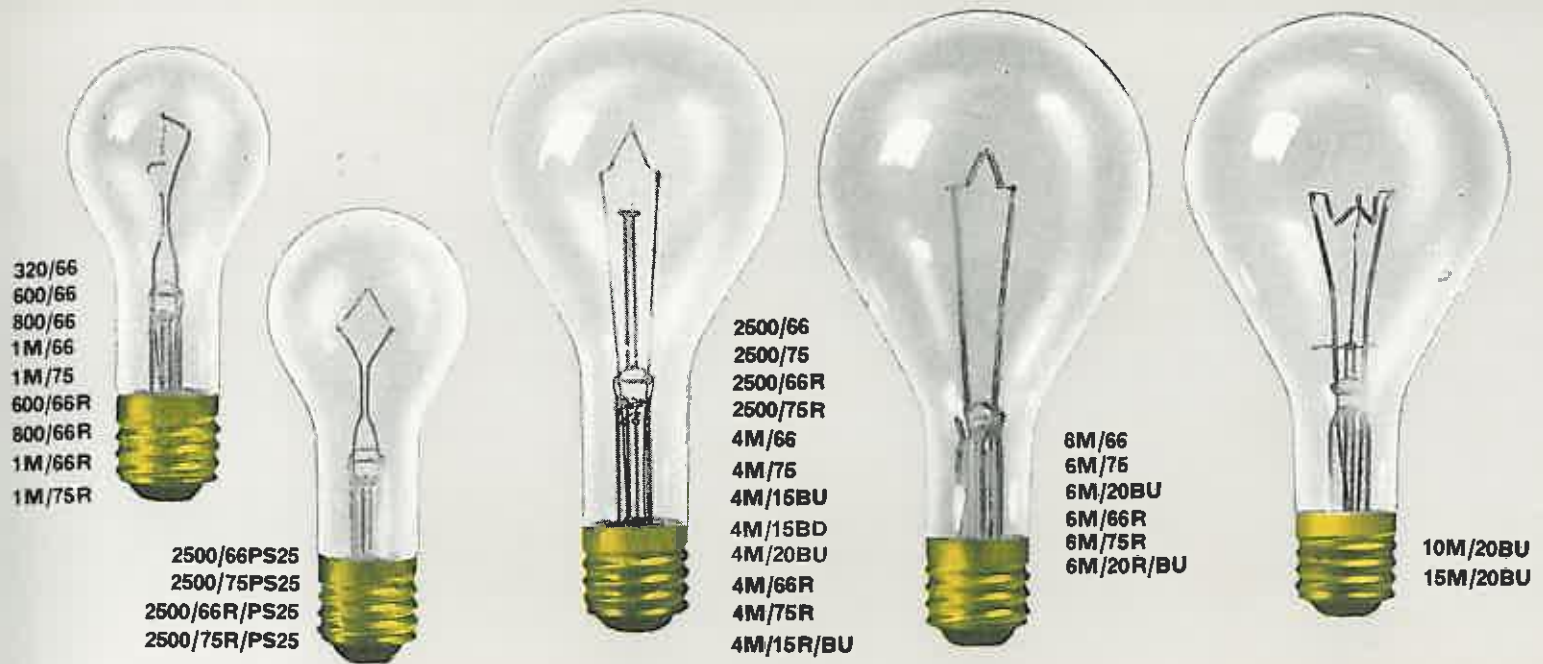
800PS52/79
860PS52/80

Watts	Clear Bulb	Base	Volts	Burning Position	Lamp Order Abbrev.	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Init. Lumens
MULTIPLE STREET LIGHTING LAMPS													
85	A-23	Med.	Std.	Any	85A23/48	\$0.24 T	6-120	1500	6 1/4	4 1/4	C	C-9	1150
175	PS-25	Med.	Std.	Any	175PS25/63	.32 T	60	1500	6 1/4	5 1/4	C	C-9	2750
268	PS-35	Mog.	Std.	Any	268PS35/55	.75 T	24	1500	9 3/4	7	C	C-9	4600
370	PS-40	Mog.	Std.	Any	370PS40/50	1.25 T	24	1500	9 3/4	7	C	C-7A	6650
575	PS-40	Mog.	Std.	Any	575PS40/51	1.30 T	24	1500	9 3/4	7	C	C-7A	11000
800	PS-52	Mog.	Std.	Any	800PS52/79	3.85 T	6	1500	13 1/4	9 1/2	C	C-7A	15200
GROUP REPLACEMENT MULTIPLE STREET LIGHTING LAMPS													
92	A-23	Med.	Std.	Any	92A23/49	.28 T	6-120	3000	6 1/4	4 1/4	C	C-9	1130
189	PS-25	Med.	Std.	Any	189PS25/64	.38 T	60	3000	6 1/4	5 1/4	C	C-9	2750
295	PS-35	Mog.	Std.	Any	295PS35/58	.85 T	24	3000	9 3/4	7	C	C-9	4700
340	PS-35	Mog.	Std.	Any	340PS35/52	.90 T	24	3000	9 3/4	7	C	C-9	5500
405	PS-40	Mog.	Std.	Any	405PS40/54	1.40 T	24	3000	9 3/4	7	C	C-7A	6650
620	PS-40	Mog.	Std.	Any	620PS40/53	1.45 T	24	3000	9 3/4	7	C	C-7A	10800
860	PS-52	Mog.	Std.	Any	860PS52/80	4.10 T	6	3000	13 1/4	9 1/2	C	C-7A	15300

Lumens	Clear Bulb	Base	Amps.	Burning Position	Lamp Order Abbrev.	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Volts
STREET SERIES LAMPS													
320	PS-25	Mog.	6.6	Any	320/66	\$0.60 T	60	2000	7 1/4	5 3/4	C	C-8	4.3
600	PS-25	Mog.	6.6	Any	600/66	.45 T	60	2000	7 1/4	5 3/4	C	C-8	6.4
800	PS-25	Mog.	6.6	Any	800/66	.45 T	60	2000	7 1/4	5 3/4	C	C-8	7.8
1000	PS-25	Mog.	6.6	Any	1M/66	.40 T	60	2000	7 1/4	5 3/4	C	C-8	9.4
1000	PS-25	Mog.	7.5	Any	1M/75	.45 T	60	2000	7 1/4	5 3/4	C	C-8	8.3
2500	PS-25	Mog.	6.6	Base Up	2500/66PS25	.80 T	60	2000	7 1/4	5 3/4	C	C-2V	...
2500	PS-25	Mog.	7.5	Base Up	2500/75PS25	.85 T	60	2000	7 1/4	5 3/4	C	C-2V	...
2500	PS-35	Mog.	6.6	Any	2500/66	.80 T	24	2000	9 3/4	7	C	C-2V	21.7
2500	PS-35	Mog.	7.5	Any	2500/75	.85 T	24	2000	9 3/4	7	C	C-2V	18.9
4000	PS-35	Mog.	6.6	Any	4M/66	.95 T	24	2000	9 3/4	7	C	C-2V	31.9
4000	PS-35	Mog.	7.5	Any	4M/75	1.00 T	24	2000	9 3/4	7	C	C-2V	29.0
4000	PS-35	Mog.	15	Base Up	4M/15BU	1.05 T	24	2000	9 3/4	7	C	C-2V	13.5
4000	PS-35	Mog.	15	Base Dn.	4M/15BD	1.05 T	24	2000	9 3/4	7	C	C-2V	13.5
4000	PS-35	Mog.	20	Base Up	4M/20BU	1.55 T	24	2000	9 3/4	7	C	C-2V	10.6
4000	PS-35	Mog.	20	Base Dn.	4M/20BD	1.55 T	24	2000	9 3/4	7	C	C-2V	10.6
6000	PS-40	Mog.	6.6	Any	6M/66	1.35 T	12	2000	9 3/4	7	C	C-2V	46.9
6000	PS-40	Mog.	7.5	Any	6M/75	1.40 T	12	2000	9 3/4	7	C	C-2V	42.1
6000	PS-40	Mog.	20	Base Up	6M/20BU	1.45 T	12	2000	9 3/4	7	C	C-2V	14.7
6000	PS-40	Mog.	20	Base Dn.	6M/20BD	1.45 T	12	2000	9 3/4	7	C	C-2V	14.7
10M	PS-40	Mog.	20	Base Up	10M/20BU	1.85 T	12	2000	9 3/4	7	C	C-7	24.3
10M	PS-40	Mog.	20	Base Dn.	10M/20BD	1.85 T	12	2000	9 3/4	7	C	C-7	24.3
10M	PS-40	Mog.	6.6	Any	10M/66	2.20 T	12	2000	9 3/4	7	C	C-7A	82.2
15M	PS-40	Mog.	20	Base Up	15M/20BU	2.55 T	12	2000	9 3/4	7	C	C-7	35.7
15M	PS-40	Mog.	20	Base Dn.	15M/20BD	2.55 T	12	2000	9 3/4	7	C	C-7	35.7

MULTIPLE

Multiple Street Lighting lamps rated in nominal lumens are designed to give the same average lumens throughout life as the corresponding Street Series lamps.



STREET SERIES

Street series lamps are designed to meet special requirements of street lighting service. Filaments are formed to produce a favorable light distribution. With operation at constant current, bulb blackening is compensated for by a slow increase in wattage and filament temperature, hence the light output is maintained throughout life at a high percentage of initial value.

The performance of street series lamps is affected sharply by current variations. The current in street series circuits should therefore be adjusted as closely as possible to rated value. Because of the severity of street series service, the average service life of series lamps even under good operating conditions may be of the order of 25 per cent less than the average laboratory life.

The 3000-hour street lighting lamps are intended for group replacement twice a year. The "standard" (2000-hour series and 1500-hour multiple) street lighting lamps are widely used for group replacement three times a year.

The new 2500-lumen lamps in PS-25 bulbs facilitate utility programs of luminaire standardization, and are used in compact, inexpensive, and highly effective luminaires recently developed for residential streets.

Reference: General Electric Lamp Dept. Bulletin LS-106 "Analysis of Street Lighting Costs as Affected by Group Replacements."

Lumens	Clear Bulb	Base	Amps.	Burning Position	Lamp Order Abbrev.	List Price	Std. Pkg. Quant.	Avg. Life	Max. Ovl. Lgh.	Avg. Lgt. Ctr. Lgh.	Class	Filament	Volts
GROUP REPLACEMENT STREET SERIES LAMPS													
600	PS-25	Mog.	6.6	Any	600/66R	\$0.55 T	60	3000	7 1/2	5 3/4	C	C-8	6.7
800	PS-25	Mog.	6.6	Any	800/66R	.55 T	60	3000	7 1/2	5 3/4	C	C-8	8.4
1000	PS-25	Mog.	6.6	Any	1M/66R	.50 T	60	3000	7 1/2	5 3/4	C	C-8	9.9
1000	PS-25	Mog.	7.5	Any	1M/75R	.50 T	60	3000	7 1/2	5 3/4	C	C-8	8.8
2500	PS-25	Mog.	6.6	Base Up	2500/66R/PS25	.95 T	60	3000	7 1/2	5 3/4	C	C-2V	.....
2500	PS-25	Mog.	7.5	Base Up	2500/75R/PS25	.95 T	60	3000	7 1/2	5 3/4	C	C-2V	.....
2500	PS-35	Mog.	6.6	Any	2500/66R	.95 T	24	3000	9 3/4	7	C	C-2V	23.0
2500	PS-35	Mog.	7.5	Any	2500/75R	.95 T	24	3000	9 3/4	7	C	C-2V	19.8
4000	PS-35	Mog.	6.6	Any	4M/66R	1.15 T	24	3000	9 3/4	7	C	C-2V	33.3
4000	PS-35	Mog.	7.5	Any	4M/75R	1.15 T	24	3000	9 3/4	7	C	C-2V	31.4
4000	PS-35	Mog.	15	Base Up	4M/15R/BU	1.25 T	24	3000	9 3/4	7	C	C-2V	14.3
4000	PS-35	Mog.	15	Base Dn.	4M/15R/BD	1.25 T	24	3000	9 3/4	6 1/2	C	C-2V	14.3
6000	PS-40	Mog.	6.6	Any	6M/66R	1.60 T	12	3000	9 3/4	7	C	C-2V	49.4
6000	PS-40	Mog.	7.5	Any	6M/75R	1.60 T	12	3000	9 3/4	7	C	C-2V	45.0
6000	PS-40	Mog.	20	Base Up	6M/20R/BU	1.70 T	12	3000	9 3/4	7	C	C-2V	15.4
6000	PS-40	Mog.	20	Base Dn.	6M/20R/BD	1.70 T	12	3000	9 3/4	6 1/2	C	C-2V	15.4

100 and 240 WATTS

420 WATTS

500 WATTS

1000 WATTS

1500 WATTS

3000 WATTS



100A19



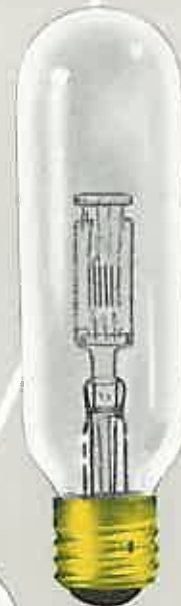
420G25P



240A19



500T20/24



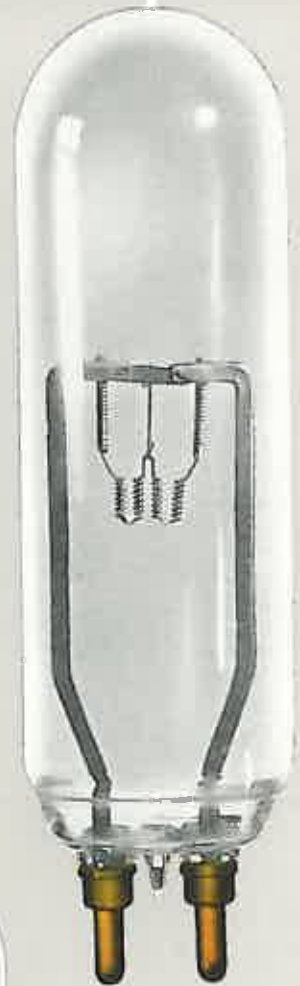
1M/T20AB



500T20P/AB



1M/T20BP



3M/T32



500PS40/45



1500T24

Airway and airport lamps and landing lamps are generally used in projection types of equipment to produce a controlled beam of light.

In G-E aviation lamps, of the pre-focus and bipost types, the filaments are accurately positioned to aid in providing a beam of proper direction and dimension and of maximum candlepower. Dependable performance, so essential to safety in aviation, is also assured by exacting manufacturing processes.



15A15/CL



25A/CL



67A21/40



6.6A/T10P



325/66/A21

The T20 and T24 bipost base lamps are used in airport and airway rotating beacons. The 500PS40 is a flashing code beacon lamp. The 1500T24 and 3MT32 are used in airport floodlighting. The 15A15/CL and 25A/CL are used in airport boundary lights. The 25A/CL and 67A21/40 are representative of lamps used for obstruction lights.

Runway marker lights of the semi-flush type employ such lamps as the 1020, 66/A21; the elevated type of marker uses the 6.6A/T10P or lamps of similar dimensions in other electrical ratings.

For data concerning All-Glass Sealed Beam type of Landing Lamps refer to Bulletin Y-6100 "General Electric Aircraft Landing Lights."

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Overt. Lath.	Avg. Lgt. Cntr. Lgt.	Class	Filament	Approx. Infil. Lumens
AVIATION LAMPS													
Aircraft Landing Lamps													
100	A-19	Med. Pf.	12	Landing	100A19 ^①	\$1.70 T	12	100	4 1/2	1 3/4	C	C-2V	2900
240	A-19	Med. Pf.	12	Landing	240A19 ^②	4.25 T	12	100	4 1/2	1 3/4	C	C-2V	5750
420	G-25	Mog. Pf.	12	Landing	420G25P ^①	5.00 T	12	100	5 1/2	1 3/4	C	C-2V	10500
Airway and Airport Beacon Lamps													
500	PS-40	Mog. Pl.	Std.	Code Bea.	500PS40/45 ^⑤	1.35 T	24	1000	10 1/2	5 1/2	C	C-7A	10000
500	T-20	Mog.	Std.	On C'se Bea.	500T20/24 ^⑥	3.50 T	12	800	9 1/2	4 3/4	C	C-13B	9000
500	T-20	Med. Bip.	Std.	Airway	500T20/13 ^⑥	4.30 T	12	500	7 1/2	3	C	C-13B	9000
500	T-20	Mog. Pf.	Std.	On C'se Bea.	500T20P/AB ^⑥	3.90 T	12	800	9 1/2	3 3/4	C	C-13B	9000
1000	T-20	Mog.	Std.	Airway	1M/T20AB ^⑥	6.50 T	12	500	9 1/2	4 3/4	C	C-13	20500
1000	T-20	Mog. Bip.	30	Airway	1M/T20BP ^⑥	7.00 T	12	500	9 1/2	4	C	C-13	25500
1000	T-20	Mog. Bip.	Std.	Airway	1M/T20BP ^⑥	6.50 T	12	500	9 1/2	4	C	C-13	20500
Airport Floodlight Lamps													
1500	T-24	Mg. Bip.	32	Airflood	1500T24 ^③	15.00 T	12	100	10 1/2	4	C	C-13B	42000
3000	T-32	Mg. Bip.	32	Airflood	3M/T32 ^③	22.00 T	6	100	14	5 3/4	C	C-13B	88500
5000	T-64	Mg. Bip.	Std.	Airflood	5M/T64/1 ^③	23.00 P	1	75	13 1/2	6 1/2	C	C-13	164000
10000	G-96	Mg. Bip.	Std.	Airflood	10M/G96/2 ^③	65.00 P	1	75	17 1/2	10	C	C-13	325000
AIRPORT BOUNDARY, RUNWAY MARKER AND OBSTRUCTION LAMPS													
15	A-15	Med.	Std.	Boundary	15A15/CL ^①	.16 T	120	1200	3 1/2	2 3/8	B	C-9	141
25	A-19	Med.	Std.	Bound'ry... Obs.	25A/CL ^①	.16 T	120	1000	3 1/2	2 3/8	B	C-9	...
40	T-10	Md. Pf.	Std.	Airp't Marker	40T10P ^②	.80 T	60	1000	3 1/2	1 1/2	C	CC-2V	...
40	A-21	Md. Pf.	Std.	Airp't Marker	40A21P ^①	.50 T	120	2000	5 1/2	2 1/4	C	CC-2V	...
50	A-19	Med.	Std.	Vibration	50A/CL/VS ^①	.20 T	120	1000	3 1/2	2 3/8	B	C-9	...
67	A-21	Med.	Std.	Obstruction	67A21/40 ^③	.30 T	120	3000	4 1/2	2 1/4	C	C-9	700
100	A-21	Md. Pf.	Std.	Airp't Marker	100A21P ^②	.50 T	120	2000	5 1/2	2 3/4	C	CC-2V	...
111	A-21	Med.	Std.	Obstruction	111A21/TS ^③	.45 T	120	3000	4 1/2	2 1/4	C	C-9	...
Amps													
45	T-10	Md. Pf.	6.6A	Airp't Marker	6.6A/T10P ^②	.85 T	60	1000	3 1/2	1 1/2	C	C-2V	...
30	T-10	Md. Pf.	6.6A	Airp't Marker	6.6A/T10/1P ^②	.85 T	60	1000	3 1/2	1 1/2	C	C-2V	...
...	A-21	Md. Pf.	6.6A	Airp't Marker	325/66/A21 ^①	.55 T	120	2000	5 1/2	2 3/4	C	C-8	325
...	A-21	Md. Pf.	6.6A	Airp't Marker	1020/66/A21 ^①	.55 T	120	2000	5 1/2	2 3/4	C	C-8	1020

① Burning position — any.

② Burning position — base down.

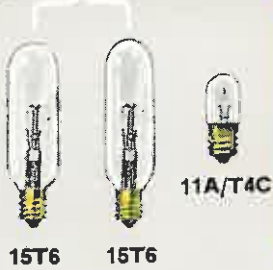
③ Burn base down to horizontal.

④ Burn any position except within 45° of base up.

⑤ Burn within 60° of vertically base up or base down.

INDICATOR LAMPS

15 WATTS



Watts or Amps.	Bulb	Base	Volts	Description	Lamp Order Abbrev.	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovl. Lgh.	Avg. Lgt. Cntr. Lgh.	Class	Filament	Approx. Init. Lumens
SWITCHBOARD INDICATOR LAMPS													
15W	T-6	Cand.	Std.	Clear	15T6	\$0.50 T	10-60	2000	3 1/2	.....	B	C-1	105
15W	T-6	Cand.	140	Clear	15T6	.45 T	10-60	2000	3 1/2	.....	B	C-1	100
.11A	T-4	Cand.	18	Clear (GE)	11A/T4C	.30 T	10-100	2000	1 1/2	.....	B	C-2V	10

The 15T6 lamps are used as indicator lights in central station power switchboards. The 11A/T4C is used as an indicator light for power switchboard in a G-E receptacle having built-in voltage reducing resistor.

3 WATTS



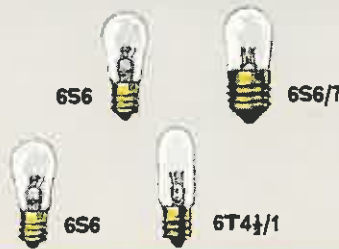
3S6 and 6S6—standard indicator or pilot lights used in homes and industry.

6T4 1/2—used where space is at a premium as in barrel inspection lights.

10S6—fits the same receptacle as the 6S6.

10S11/46—used where more light is needed. Has larger bulb.

6 WATTS



10 WATTS



Watts	Bulb	Base	Volts	Description	Lamp Order Abbrev.	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovl. Lgh.	Avg. Lgt. Cntr. Lgh.	Class	Filament	Approx. Init. Lumens
INDICATOR LAMPS													
3	S-6	Cand.	Std.	Clear	3S6/5	\$0.25 T	10-120	3000	1 1/2	.....	B	C-7A	12
6	S-6	Cand.	Std.	Clear	6S6	.16 T	10-120	1500	1 1/2	.....	B	C-7A	40
6	S-6	Cand.	*	Indic.	6S6	.45 T	10-120	1500	1 1/2	.....	B	C-7A	35
6	S-6	Inter.	Std.	Indic.	6S6/7	.26 T	10-120	1500	1 1/2	.....	B	C-7A	40
6	T-4 1/2	Cand.	Std.	Indic.	6T4 1/2	.45 T	10-100	1500	1 1/2	.....	B	C-7A	39
10	S-6	Cand.	High	Indic.	10S6/10	.40 T	10-120	1500	1 1/2	.....	B	C-1	60
10	S-11	Cand. Sktd.	Std.	Indic.	10S11/46	.35 T	6-120	1500	2 1/2	.....	B	C-7A	78

* 135, 145, 155 volts.

NIGHT LIGHT AND HOME APPLIANCE LAMPS

7 WATTS

15 WATTS

15 WATTS

15 WATTS

15 WATTS

25 WATTS



15T7—for sewing machines and certain industrial machines.
25T8—for vacuum cleaners and other appliances. T-7 and T-8 lamps have ratings of 200 hours for vacuum cleaners, 600 for sewing machines.

7C7—for plug-in night lights in homes.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Max. Ovl. Lgh.	Class	Filament	Avg. Life	Approx. Init. Lumens
NIGHT LIGHTS and HOME APPLIANCE LAMPS												
7	C-7	Cand.	120	Clear	7C7	\$0.11 T	10-120	2 1/2	B	C-7A	2000	50
				White	7C7/W	.13 T	10-120	2 1/2	B	C-7A	2000	.....
				M't. Blue	7C7/MB	.12 T	10-120	2 1/2	B	C-7A	2000	.....
				Red	7C7/R	.12 T	10-120	2 1/2	B	C-7A	2000	.....
15	T-7	Cand.	115	Clear	15T7/6	.38 T	6-60	2 1/2	B	C-1	.....	105
15	T-7	D.C. Bay.	Std.	Clear	15T7DC	.25 T	10-60	2 1/2	B	C-1	.....	106
15	T-7	D.C. Bay.	Std.	I. F.	15T7DC/IF	.30 T	10-60	2 1/2	B	C-1	.....	.....
15	T-7	Cand.	Std.	Clear	15T7C	.38 T	10-60	2 1/2	B	C-1	.....	105
15	T-7	Inter.	Std.	Clear	15T7N	.38 T	10-60	2 1/2	B	C-1	.....	105
25	T-8	D.C. Bay.	Std.	Clear	25T8DC	.25 T	6-60	2 1/2	B	C-1	.....	230
25	T-8	D.C. Bay.	Std.	I. F.	25T8DC/IF	.30 T	6-60	2 1/2	B	C-1	.....	.....

OVEN LAMPS • REFRIGERATOR LAMPS

40 WATTS

50 WATTS

100 WATTS

15 WATTS

40 WATTS



40A15/22



50A19/31



50A19/38



100A23/20



15S11/102



40A15/1

Special materials and manufacturing techniques are employed in lamps designed to withstand high temperatures.

40A15—Withstands range oven temperatures up to 475°F.

50A19 and 100A23 withstand bake oven temperatures up to 600°F.

15S11/102 is used in refrigerators where space is limited. Otherwise the 40A-15/1 is recommended.

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Initt. Lumens
OVEN LAMPS													
40	A-15	Med.	Std.	Cl. Range	40A15/22	\$0.25 T	6-120	1000	4	2 1/8	C	C-9	470
50	A-19	Med.	Std.	Cl. Bake O.	50A19/31	.40 T	6-120	1000	3 1/2	2 1/8	B	C-9	520
50	A-19	Med.	High	Cl. Bake O.	50A19/38	.45 T	6-120	1000	3 1/2	2 1/8	B	C-17	480
100	A-23	Med.	Std.	Cl. Bake O.	100A23/20	.60 T	6-120	1000	6 3/4	4 1/8	C	CC-6	1500
REFRIGERATOR LAMPS													
15	S-11	Med.	115-125	Refrig.	15S11/102	.16 T	6-120	400	2 1/4	...	B	C-7A	140
40	A-15	Med.	115-125	I.F. Refrig.	40A15/1	.12 T	6-120	1000	3 3/4	2 3/4	C	C-9	465

1500 WATTS



1500T24/15

PHOTO ENGRAVING LAMPS

Watts	Bulb	Base	Volts	Description	Lamp Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Max. Ovr. Lgth.	Avg. Lgt. Cntr. Lgth.	Class	Filament	Approx. Initt. Lumens
PHOTO ENGRAVING LAMP													
1500	T-24	Med. Bip.	Std.	I.F.	1500T24/15	\$5.50 P	12	50	9 3/4	5 1/2	C	C-13	42500

Ⓢ Burn base up.

For use in equipment specially designed for lighting photo-engraving copy boards.

100 WATTS 200 WATTS 15 W 30 W



100T8 1/2/9



200P25/26



30S11/93



15S11/14

Watts	Bulb	Base	Volts	Description	Order Abbreviation	List Price	Std. Pkg. Quan.	Avg. Life	Ovr. Lgth.	L. C. Lgth.	Class	Filament	Apr. Initt. Lumens
MICROSCOPE LAMP													
100	T-8 1/2	Med.	Std.	Mic.	100T8 1/2/9	\$2.05 T	24	50	5 1/2	3	C	CC-13	1850
X-RAY LAMP													
200	P-25	Med.	Std.	I.F. Daylight	200P25/26	2.00 T	60	100	4 3/4	3	C	C-7A	...
DOCTOR'S HEADLAMP													
15	S-11	Cand.	Std.	Headlamp	15S11/14	.55 T	6-120	200	2 1/4	1 1/4	B	C-5	140
FILM VIEWER LAMP													
30	S-11	D.C. Bay.	115-125	Film Viewer	30S11/93	.38 T	6-120	50	2 3/4	1 1/4	C	CC-2V	420

Ⓢ Burn base down.

Ⓢ Burn base down to horizontal.

MICROSCOPE LAMPS

100T8 1/2/9 — used to illuminate the stage of the microscope.

X-RAY LAMP

200P25/26 — for use in X-Ray illuminator equipment.

DOCTOR'S HEADLAMP

15S11/14 — fits into a reflector to project a beam of light on the area under examination.

FILM VIEWER LAMP

30S11/93 — designed for use in film-viewing devices.

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Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page	Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
25	F-15	25F 25F/FT 25F/V 25F/W	Decorative " " "	40-41 " 40-41 "	40	T-8	L40/IF L40/MB L40/EM L40/O L40/SPK L40/ST L40/W L40/R	Lumiline " " " " " " "	39 " " " " " " "
25	G-18½	25G18½/FT 25G18½/V 25G18½/W	Decorative " "	40-41 " "	40	T-8½	40T8½/IF	Train	52-53
25	G-25	25G25 25G25/FT 25G25/V 25G25/W	Decorative " " "	40-41 " " "	40	T-10	40T10 40T10/AF 40T10/RFL 40T10P	Tubular&Showcase " " Aviation	38 " " 58-69
25	T-6½	25T6½ 25T6½/IF	Tubular&Showcase "	38 "	50	A-19	50A/RS 50A19/RS 50A19/RS 50A 50A19/31 50 A 50A19/38 50A19 50A19/35 50A19/36 50A/VS 50A/CL/VS	Rough Service " " Train General Oven High Voltage Oven Mine " " Vibration Aviation	50 " " 52-53 12-13 61 36-37 61 36 " " 50 58-59
25	T-8	25T8DC 25T8DC/IF	Home Appliance "	60 "	50	A-21	50A21 50A21 50A21	6 & 12 Volt Train Country Home	51 52-53 51
25	T-8½	25T8½/IF	Train	52-53	50 } 50 }	P-25	50/50P25/28	Marine	32
25	T-10	25T10 25T10/70 25T10/AF 25T10/IF 25T10/RFL	Tubular&Showcase " " " "	38 " " " "	50 } 100 } 150 }	PS-25	50/150M 50/150	Three-Lite " "	32 " "
30	S-11	30S11/93	Film Viewer	61	50	S-11	50S11/DC	Toy Projector	48
30	T-8	L30 L30/IF L30/MB L30/EM L30/O L30/SPK L30/ST L30/W L30/R	Lumiline " " " " " " " "	39 " " " " " " "	50	T-8	50T8/22DC	Projection	48
30 } 70 } 100 }	A-21	30/100	Three-Lite	32	56	A-21	56A21	Street Railway	54-55
36	A-19	36A/RYPH	Street Railway	54-55	56	P-25	56P25	" "	"
36	A-21	36A/RYP	" "	"	60	A-19	60A 60A/D 60A/DCL 60A/SB 60A/W	General " " " "	12-13 " " " "
40	A-15	40A15/1 40A15/22	Refrigerator Oven	61 "	60	A-21	60A21/AO 60A21/B 60A21/FT 60A21/G 60A21/V 60A21/RO 60A21/R 60A21/Y 60A21/NA 60A21/NB 60A21/NG 60A21/NR 60A21/TS	Decorative " " " " " " " Natural Colored " " " " Traffic Signal Aviation	42-43 " " " " " " " 44 " " " " 54 58-59
40	A-19	40A 40A	General Train	12-13 52-53	60	T-8	L60 L60/IF L60/MB L60/EM L60/O L60/SPK L60/ST L60/W	Lumiline " " " " " " "	39 " " " " " " "
40	A-21	40A21 40A/AO 40A/B 40A/FT 40A/G 40A/V 40A/RO 40A/R 40A/Y 40A/NA 40A/NB 40A/NG 40A/NR 40A/TS 40A21P	Sign & Decorative " " " " " " " " " Natural Colored " " " " Traffic Signal Aviation	42-43 " " " " " " " " " 44 " " " " 54 58-59	40	G-25	40G/FT 40G/V 40G/W	Decorative " "	40-41 " "
40	T-8	40T8 40T8/AF 40T8/IF L40	Tubular&Showcase " " Lumiline	38 " " 39					

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Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page	Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
67	A-21	67A21/40 67A21/40	Traffic Signal Aviation	54 58-59	150	PS-25	150/RS	Rough Service	50
75	A-21	75A	General	12-13	150	R-40	150R/SP 150R/FL	Reflector Spot Reflector Flood	33 33
75	A-23	75A23/D	"	"	150	T-8	150T8/70 150T8/79	Projection	48
85	A-23	85A23/48	Street Lighting	56-57	150 } 150 }	G-30	150/150G30/32	Spotlight	35
92	A-23	92A23/49	" " "	"	151	PS-25	151PS25/18	Street Railway	54-55
94	P-25	94P25	Street Railway	54-55	175	PS-25	175PS25/63	Street Lighting	56-57
100	A-19	100A19	Aviation	58-59	189	PS-25	189PS25/64	" " "	"
100	A-21	100A21/3 100A21/4P 100A21/7P 100A 100A21/TS 100A21P	Train " " General Traffic Signal Aviation	52-53 " " 12-13 54 58-59	200	P-25	200P25/26	X-Ray	61
100	A-23	100A 100A/D 100A/DCL 100A/SB 100A23/20 100A23/28 100A 100A 100A/RS	Train General " " Oven Vibration High Voltage Country Home Rough Service	52-53 12-13 " " 61 50 36-37 51 50	200	PS-30	200 200/IF 200/WB 200/D 200/DIF 200/SBIF 200SBIF/1 200PS30/24 200PS30/23 200PS30/12 200 200/IF	General " " " " " Rough Service General High Voltage	12-13 " " " " " 50 12-13 36-37
100	G-16½	100G16½/29SC 100G16½/29DC 100G16½/30	Spotlight " "	35 " "	200	T-8	200T8SC	Projection	48
100	A-21	100A21SP 100A21/1SP	Spotlight "	35 "	200	T-10	200T10 200T10P	Projection "	48 "
100	S-11	100S11SC	Toy Projector	48	201	PS-30	201PS30	Street Railway	54-55
100	T-8	100T8SC 100T8/108SC	Projection "	48 "	240	A-19	240A19	Aviation	58-59
100	T-8½	100T8½/9	Microscope	61	250	G-30	250G/SP 250G/FL 250G30IL 250G30	Spotlight Floodlight General Infrared	35 34 12-13 28
100 } 100 }	P-25	100/100P25/29	Marine	32	250	PS-25	250P25 250P25P 250P25/22	Train " "	52-53 " "
100 } 200 } 300 }	G-30	100/300	Three-Lite	32	250	R-40	250R40/1 250R40/9 250R40/4 250R40/10	Infrared " " "	28 " " "
101	A-23	101A23	Street Railway	54-55	250	T-14	250T14/2	Projection	48
111	A-21	111A21/TS	Aviation	58-59	268	PS-35	268PS35/55	Street Lighting	56-57
120	A-21	120A21/49	Toy Projector	48	295	PS-35	295PS35/58	Street Lighting	"
125	G-30	125G30	Infrared	28	300	PS-30	300M 300M/IF	General "	14-15 "
125	R-40	125R40	Infrared	28	300	PS-35	300M/WB 300MS/IF 300MS/WB 300MS/D 300MS/SBIF 300MS 300 300/IF 300MS 300 300/IF 300/WB 300/D	" " " " " " " High Voltage " " General "	" " " " " " " 36-37 " " 14-15 "
140	T-10	140T10/69	Toy Projector	48					
150	PAR-38	150PAR/SP 150PAR/FL 150PAR/3FL 150PAR/3SP	Projector Spot Projector Flood Projector Projector	33 " " "					
150	PS-25	150 150/CL 150/WB 150/DCL 150/D 150/SB	General " " " " "	12-13 " " " " "					

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Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page	Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
300	PS-35	300/DIF 300/SBIF 300/SBIF/1	General " "	14-15 " "	750	T-24	750T24 750T24/16 750T24/13 750T24/14	General Photographic "	16-17 46-47 "
300	R-40	300R/SP 300R/FL 300R/FL/1	Reflector Spot Reflector Flood "	33 33 33	800	PS-52	800PS52/79	Street Lighting	56-57
300	T-8½	300T8½/1SC 300T8½/10	Projection "	48 "	860	PS-52	860PS52/80	" "	"
300	T-10	300T10P	"	"	900	T-20	900T20	Projection	48
301	PS-35	301PS35	Street Railway	54-55	1000	G-40	1M/G40SP4½ 1M/G40SP5½ 1M/G40/PSP 1M/G40FL 1M/G40/6 1M/G40/24 1M/G40/7 1M/G40/22	Spotlight " " Floodlight Photographic " "	35 " " 34 46-47 " "
340	PS-35	340PS35/52	Street Lighting	55-67	1000	PS-52	1000 1000/IF 1000/WB 1000/SBIF 1M/PS52/77 1000 1000/IF	General " " " Photographic High Voltage "	16-17 " " " 46-47 36-37 "
370	PS-40	370PS40/50	" "	"	1000	T-12	1M/T12P	Projection	48
375	G-30	375G30	Infrared	28	1000	T-20	1M/T20MP 1M/T20 1M/T20AB 1M/T20BP 1M/T20P 1M/T20/40 1M/T20/59 1M/T20/58	" " Aviation " Projection " Photographic "	" " 58-59 " 48 " 46-47 "
375	R-40	375R40	"	"	1000	T-24	1M/T24	General	16-17
400	G-30	400G/SP 400G/FL	Spotlight Floodlight	35 34	1000	T-40	1M/T40/3	Infrared	28
405	PS-40	405PS40/54	Street Lighting	56-57	1500	G-48	1500G48/6	Floodlight	34
420	G-25	420G25P	Aviation	58-59	1500	PS-52	1500 1500/IF 1500PS52/78 1500	General " Photographic High Voltage	16-17 " 46-47 36-37
480	G-30	480G30	Train	52-53	1500	T-20	1500T20/39	Projection	48
500	G-40	500G/FL	Floodlight	34	1500	T-24	1500T24/15 1500T24	Photo Engraving Aviation	61 58-59
500	PS-25	500PS25/5	Photographic	46-47	2000	G-48	2M/G48/17 2M/G48/19 2M/G48/20 2M/G48/14 2M/G48/18	Spotlight Photographic " " "	35 46-47 " " "
500	PS-40	500 500/IF 500/D 500/DIF 500/SBIF 500/WB 500 500/IF 500PS40/45	General " " " " " High Voltage " Aviation	16-17 " " " " " 36-37 " 58-59	2000	PS-52	2M/PS52/76	Photographic	46-47
500	T-10	500T10P	Projection	48	2000	T-30	2M/T30/1	Spotlight	35
500	T-20	500T20 500T20/50 500T20P 500T20/64 500T20/57 500T20/56 500T20/63 500T20/60 500T20/61 500T20/24 500T20/13 500T20P/AB 500T20/B	Projection General Projection Spotlight Photographic " " " " Aviation " " " "	48 16-17 48 35 46-47 " " " " 58-59 " " "	2100	T-24	2100T24/8	Projection	48
500	T-40	500T40/3	Infrared	28	3000	T-32	3M/T32	Aviation	58-59
575	PS-40	575PS40/51	Street Lighting	56-57	5000	G-64	5M/G64/7	Photographic	46-47
620	PS-40	620PS40/53	" "	"	5000	T-64	5M/T64/1 5M/T64/1	Photographic Aviation	46-47 58-59
750	PS-52	750 750/IF 750/WB 750/SBIF 750 750/IF	General " " " High Voltage "	16-17 " " " 36-37 "	10M	G-96	10M/G96/2 10M/G96/2	Photographic Aviation	46-47 58-59

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Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page	Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
MERCURY LAMPS					15	T-8	F15T8/45W	General Line	22
100	T-10	A-H4		27			F15T8/W	" "	"
250	T-14	C-H5		"			F15T8/SW	" "	"
400	T-16	A-H1		"	15	T-12	F15T12/D	" "	"
400	T-16	B-H1		"			F15T12/GO	" "	"
400	T-12	F-H1		"			F15T12/PK	" "	"
3000	T-9½	A-H9		"			F15T12/45W	" "	"
							F15T12/W	" "	"
							F15T12/SW	" "	"
TYPE H BLACK LIGHT LAMPS					20	T-12	F20T12/B	" "	23
100	T-16	B-H4	Nat. Red. Purple	29			F20T12/D	" "	"
100	PAR-38	C-H4	Spotlight	"			F20T12/GO	" "	"
100	PAR-38	E-H4	Floodlight	"			F20T12/G	" "	"
250	A-21	250A21/60	Blk. Lgt. Purp. X	"			F20T12/PK	" "	"
250	T-14	A-H5	Blk. Lgt.	"			F20T12/R	" "	"
							F20T12/45W	" "	"
							F20T12/W	" "	"
							F20T12/SW	" "	"
FLUORESCENT BLACK LIGHT LAMPS					30	T-8	F30T8/B	General Line	23
6	T-5	F6T5/360BL	360BL	29			F30T8/D	" "	"
15	T-8	F15T8/360BL	360BL	"			F30T8/GO	" "	"
30	T-8	F30T8/360BL	360BL	"			F30T8/G	" "	"
40	T-12	F40T12/360BL	360BL	"			F30T8/PK	" "	"
3	RP-12	F3RP12/360BL	360BL	"			F30T8/R	" "	"
4	RP-12	F5000	360BL	"			F30T8/45W	" "	"
							F30T8/W	" "	"
							F30T8/SW	" "	"
SUNLAMPS					40	T-12	F40T12/B	" "	24
275	R-40	RS	Reflector	30			F40T12/D	" "	"
100	RS	RS-4	"	"			F40T12/GO	" "	"
100	A-21	S-4	Clear	"			F40T12/G	" "	"
400	PS-22	S-1	Inside Frosted	"			F40T12/PK	" "	"
							F40T12/R	" "	"
							F40T12/45W	" "	"
							F40T12/W	" "	"
							F40T12/SW	" "	"
							F40T12/W/LT	" "	"
							F40T12/D/IS	" "	"
							F40T12/45W/IS	" "	"
							F40T12/W/IS	" "	"
							F40T12/D/IS/H	" "	25
							F40T12/45W/IS/H	" "	"
							F40T12/W/IS/H	" "	"
FLUORESCENT LAMPS					100	T-17	F100T17/D	" "	24
4	T-5	F4T5/D1	General Line	21			F100T17/45W	" "	"
		F4T5/W1	" "	"			F100T17/W	" "	"
6	T-5	F6T5/D	" "	"			F100T17/SW	" "	"
		F6T5/45W	" "	"	40	T-17	F40T17/45W/IS/H	" "	"
		F6T5/W	" "	"	85	T-10	F85T10/BW	" "	25
8	T-5	F8T5/D	" "	"			F85T10/IW	" "	"
		F8T5/45W	" "	"	16-33	T-6	F42T6/45W	Slimline	26
		F8T5/W	" "	"			F42T6/W	" "	"
13	T-5	F13T5/D	" "	"			F42T6/SW	" "	"
		F13T5/45W	" "	"	24-51	T-6	F64T6/45W	" "	"
		F13T5/W	" "	"			F64T6/W	" "	"
14	T-12	F14T12/D	" "	"			F64T6/SW	" "	"
		F14T12/45W	" "	"	22-51	T-8	F72T8/45W	" "	"
		F14T12/W	" "	"			F72T8/W	" "	"
		F14T12/SW	" "	"	29-69	T-8	F96T8/45W	" "	"
		F14T12/W/1	" "	"			F96T8/W	" "	"
15	T-8	F15T8/B	" "	22	32	T-10	FC12T10/W	Circline	26
		F15T8/D	" "	"			FC12T10/45W	" "	"
		F15T8/GO	" "	"					
		F15T8/G	" "	"					
		F15T8/PK	" "	"					
		F15T8/R	" "	"					

LAMPS BY LUMENS, VOLTS, OR AMPS

Watts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page	Lumens	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
NEON GLOW LAMPS					10M	PS-40	10M/66 10M/20BU 10M/20BD	Series " "	56-57 " "
1 3/5 1/4 1/4 1/4 1/4 1/4 1/2	T-2 T-3 1/4 T-4 1/2 T-4 1/2 T-4 1/2 T-4 1/2 T-4 1/2 T-4 1/2	NE-2 NE-51 NE-45 NE-48 NE-16 NE-57 NE-17 NE-58	Glow " " " " " "	45 " " " " " "	15M	PS-40	15M/20BU 15M/20BD	" "	" "
1 1 1 2 2 3 3	G-10 G-10 G-10 S-14 S-14 S-14 S-14	NE-30 NE-32 NE-56 NE-34 NE-36 NE-40 NE-42	" " " " " " "	" " " " " " "	LAMPS LISTED BY VOLTS				
					Volts	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
					4	S-8	75A/S8SC 75A/S8SCP 75A/S8DCP	Sound Reproducer " "	49 " "
					5	T-8	6.5A/T8SCP	"	"
					6	T-5	1A/T5/7	"	"
					7	T-5	20A/T5SCP	"	"
					8	T-8	2A/T8SC 2A/T8SCP	" "	" "
					8.5	T-8	4A/T8/25 4A/T8/34	" "	" "
					9	T-8	4A/T8SCP	"	"
					10	T-8	5A/T8SC 5A/T8SCP 7.5A/T8SC 7.5A/T8SCP	" " " "	" " " "
					27	T-8	1A/T8SC	"	"
					30	A-19	1A/A19	Street Railway	54-55
					30	A-21	1.6A/A21	"	"
					60	S-11	50A/S11N/W	Resist. Ballast	49
LAMPS LISTED BY LUMENS					LAMPS LISTED BY AMPERES				
Lumens	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page	Amps.	Bulb	Lamp Order Abbrev.	Lamp Classification	Listed On Page
320	PS-25	320/66	Series	56-57	6.6	T-10	6.6A/T10P 6.6A/T10/1P	Aviation "	58-59 "
600	PS-25	600/66 600/66R	" "	" "	6.6	A-21	325/66/A21 1020/66/A21	" "	" "
800	PS-25	800/66 800/66R	" "	" "	11	T-4	11A/T4C	Switchboard	60
1000	PS-25	1M/66 1M/66R 1M/75 1M/75R	" " " "	" " " "					
2500	PS-25	2500/66PS25 2500/66R/PS25 2500/75PS25 2500/75R/PS25	" " " "	" " " "					
2500	PS-35	2500/66 2500/66R 2500/75 2500/75R	" " " "	" " " "					
4000	PS-35	4M/66 4M/66R 4M/75 4M/75R 4M/15BU 4M/15BD 4M/15R/BU 4M/15R/BD 4M/20BU 4M/20BD	" " " " " " " " " " "	" " " " " " " " " "					
6000	PS-40	6M/66 6M/66R 6M/75 6M/75R 6M/20BU 6M/20BD 6M/20R/BU 6M/20R/BD	" " " " " " " "	" " " " " " " "					

ORDERING INSTRUCTIONS

1. Purchasers are urged to order in standard packages to expedite service and to assure best discount.

Quantity desired of each type of lamp should be specified.

Lamps should be ordered by the Lamp Ordering Abbreviations provided in this catalog for each type. Each abbreviation is complete for ordering without any other specifications, *except that the correct voltage must be specified.* Abbreviations which are complete without voltage include the series lamps listed in lumens and amperes, fluorescent lamps, and the lamp numbers for General Electric S (Sunlight) and General Electric H lamps.

2. Lamps not specifically listed should be ordered by complete specifications including watts, volts (lumens and amperes for street series lamps) bulb, base, finish and service, as follows:

Specification	FOR EXAMPLE	
	Multiple Lamps	Series Lamps
Size	150 watts	2500 lumens
Volts or Amperes	120 volts	15 amperes
Bulb	A-19, PS-30, G-25, etc.	PS-25, PS-35, etc.
Base	Medium screw, mogul screw, candelabra screw, etc.	
Finish	Clear, inside frosted, white bowl, daylight, etc.	
Service	Projection, Train, etc.	Street Lighting.

3. Special lamp orders, except for special etching, may be filled within the limits of 10 per cent, except that on orders for 10 lamps or less there will be no shortage or excess. Orders for lamps with special etching may be filled within the limits of 5 per cent, except that on orders for less than 40 lamps the shortage or excess may not exceed two lamps.

4. Voltage limits shown as 115-125 indicate that the lamps are intended for use on circuits with voltages normally falling within these limits and are designed at a voltage suitable for such use; the prices listed do not apply to lamps ordered for individual voltages within such range.

(a) Standard Voltage, as referred to herein, includes 115-, 120- and 125-volts. High Voltage includes 230- and 250-volts.

(b) Voltage Codes used to indicate stock are as follows:

VOLTAGE CODES INCLUDING STANDARD								VOLTAGE CODES INCLUDING HIGH			
1	115, 120	4	120, 125	7	115, 125	10	110,130	1	230, 250		
2	115, 120, 125	5	115	8	110			2	250		
3	120	6	125	9	130			3	230		

5. Burning Position for all lamps is "Any" unless otherwise stated.

6. Specially Designed Auxiliary Equipment must be used with Fluorescent, H lamps (Mercury Vapor) Sunlamps and Germicidal lamps to produce proper electrical values. For these types, the wattages are approximate; for total, add auxiliary watts. Germicidal lamps are designed for service other than illumination.

7. Light Center Length is the average measurement for which the lamp is designed, subject to manufacturing tolerances. The light center length is the distance from the center of light source to the following point for the base used; Screw bases — bottom base contact; Mogul Bipost — shoulder of post; Medium Bipost — bottom of bulb (base end); Bayonet Candelabra and Medium Bayonet — top of base pins; Medium and Mogul Prefocus — top of base pins; Prong — nut, washer or shoulder of base prong; S.C. or D.C. prefocus — plane of locating bosses of prefocusing collar.

8. Maximum Over-all Length is the distance from the top of bulb to bottom of base. Measurements given are shortest maximum guaranteed not to be exceeded at price listed.

DISCOUNTS, TERMS, AND ALLOWANCES

TAX INFORMATION

The prices shown in this catalog do not include any State and City Sales and Use Taxes, or Federal Excise Taxes levied on Electric Light Bulbs and Tubes and on lamps designed for Photographic services. The following Tax symbols, shown in the List Price Column, indicate lamps on which the Federal Excise Tax will be passed on to the Purchaser as a separate charge, and lamps that are not subject to Federal Excise Tax:

- T — On Lamps so designated, the Federal Excise Tax will be billed as a separate item at 10.4% of the List Price. However, on lamps purchased for original installation at specified net prices, the Federal Excise Tax will be billed at 19.7% of the net billing price.
- P — On Lamps so designated, the Federal Excise Tax will be billed as a separate item at 10.4% of the List Price. However, on lamps purchased for original installation at specified net prices, the Federal Excise Tax will be billed at 19.7% of the net billing price.
- N — Lamps so designated are not subject to Federal Excise Tax.

DISCOUNTS, TERMS, AND ALLOWANCES

DISCOUNT SCHEDULE TO PURCHASERS

A standard package of large General Electric lamps is defined as a package, as packed by the factory, of that "Standard Package Quantity" designated for each lamp in the Price Schedule of General Electric Large Lamps, and the lamps in such a standard package may not be of different specifications.

TO PURCHASERS WITHOUT CONTRACT

Minimum List Value for Immediate Delivery to One Point:	Discount
Less than \$5.00	0%
\$ 5.00	20%
\$15.00 or a Standard Package ^①	25%

TO PURCHASERS UNDER CONTRACT

Basis (Net Value of Purchases) Form E or CE Contract	Discount	
	For Immediate Delivery to One Point	
	\$15 or More List Value ^①	Less than \$15 List Value ^②
\$ 300	26%	21%
600	28%	23%
1,500	30%	25%
3,500	32%	27%
7,500	33%	28%
15,000	34%	29%
20,000	35%	30%
35,000	36%	31%
65,000	37%	32%
100,000	38%	33%
150,000	39%	34%
200,000	40%	35%

① On a purchase of \$15 or more list value or on a purchase of less than \$15 list value which includes a standard package.

② On purchases of broken packages amounting to less than \$15 list value.

TERMS OF PAYMENT

All invoices for lamps shall be paid not later than thirty (30) days from date of invoice. If payment of any invoice is made within ten (10) days from invoice date, two per cent (2%) may be deducted from the net amount of such invoice.

TRANSPORTATION ALLOWANCES

All lamps listed in price schedules will be sold and billed to purchasers f.o.b. point of shipment, with transportation (excluding cartage) allowed on each shipment to any point in domestic territory consisting of not less than one standard package as packed by the Lamp Department or of \$15 list value — whichever is of lower value.

Domestic territory shall be considered to be the United States, its territories and dependencies, including Alaska, the Hawaiian Islands, the Panama Canal Zone, Puerto Rico, and the Virgin Islands, but not the Philippines, which with the rest of the world shall be regarded as foreign territory.

Should any purchaser desire its lamps shipped "Charges Collect," such purchaser, in deducting transportation charges from invoices covering lamps so shipped, will not be allowed to deduct cartage.

Evident loss or damage to a shipment must be indicated by a notation made by the carrier's agent on the delivery receipt before the receipt is signed. The notation must clearly specify the extent of loss, shortage or damage. Concealed damage must be reported to the carrier within 15 days after delivery. The filing of claims with carriers for loss or damage in transportation must be executed within 9 months after date of delivery or in case of non-delivery within 9 months after a reasonable time for delivery has elapsed. Purchasers desiring the assistance of the Lamp Department in filing such claims must report them to the manufacturer within a reasonable time so as to permit compliance with the common carrier's requirement.

Glow Lamps — Neon Glow Lamps are included in this Catalog because of their wide popular demand. They may not be purchased under Large Lamp Contracts. For Discounts, Terms of Payment, Transportation allowances, etc. on Glow Lamps consult your General Electric Lamp Sales or Service District.

250R40/10 Heat Lamp and RS Sunlamp — The Schedule of Discounts to Purchasers without Contract do not apply to these lamps. A discount of 25% of list will be allowed on noncontract purchases of one or more standard packages of these lamps, but no discount will be allowed on less than standard package quantities even if purchased with standard packages.

EXTRA CHARGES FOR SPECIAL FEATURES

Extra charges will all be based on the list price of the specifically listed lamp. Special feature rules may be applied only when the type of lamp desired is not already specifically listed, and do not apply to Germicidal, Lumiline, F. H. S. Projector, Reflector, Silvered or Type RF lamps, except that the extra charges for etching will apply to Projector, Reflector and Silvered lamps.

Unless otherwise shown under the special feature, order lamps with special features from 2, except where 1 or 15 is shown as making the basic lamp, in which case order from the factory specifically listed.

Special Feature Desired	List Price of Basic Lamp	List Add'l Charge for Special Feature															
<i>Inside Frosted "A" Bulb Lamps Furnished Clear.</i>	Less than \$1.00	\$0.05															
<i>Inside Colored or Outside Coated</i> red, blue, green, yellow, amber-orange, flametint, ivory, old rose, and inside colored white. Inside coloring applies only to vacuum lamps in A-17, A-19, A-21, S-11 (except with candelabra screw base), and S-14 bulbs. Order from 2	Less than \$1.00	.10															
<p><i>White</i> (entire bulb outside coated) is standard for vacuum lamps, and for gas-filled lamps in bulbs 2 7/8" and smaller diameter. Exceptions — for lamps in daylight, photographic blue, and natural colored bulbs, and tubular lamps for showcase, country home, train, and home appliance services, all frosted is standard.</p> <p><i>All Frosted</i> (entire bulb outside coated) is standard for gas-filled lamps in bulbs larger than 2 7/8" diameter, for lamps in daylight, photographic blue, and natural colored bulbs, and tubular lamps for showcase, country home, train, and home appliance services.</p> <p><i>White Bowl</i> (hemisphere opposite base outside coated) of Heavy Density is standard for vacuum lamps, and for gas-filled lamps in bulbs of 2 7/8" and smaller diameter; extra heavy density is standard for gas-filled lamps in bulbs larger than 2 7/8" diameter; light density (frosted) is standard for lamps in daylight, photographic blue, and natural colored bulbs. Lamps listed at the same price clear and white or all frosted, will be furnished outside white bowl at the usual list additional charge. Inside frosted "A" bulb lamps will be furnished clear or inside frosted white bowl at the usual charge for white bowl, there being no charge for the use of the clear bulb. Inside White Bowl may be furnished in PS-25, and larger PS bulbs at the same price as outside white bowl.</p> <p><i>Inside Frosted</i> may be furnished in any clear PS-25 and larger PS bulbs, and S-14 bulbs.</p>	<p>The list additional charges apply only to standard coatings</p> <table style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: left;">Less than \$1.00</td><td style="text-align: right;">.05</td></tr> <tr><td style="text-align: left;">\$1.00 to 1.99</td><td style="text-align: right;">.10</td></tr> <tr><td style="text-align: left;">2.00 to 2.99</td><td style="text-align: right;">.15</td></tr> <tr><td style="text-align: left;">3.00 to 3.99</td><td style="text-align: right;">.20</td></tr> <tr><td style="text-align: left;">4.00 to 4.99</td><td style="text-align: right;">.25</td></tr> <tr><td style="text-align: left;">5.00 to 5.99</td><td style="text-align: right;">.30</td></tr> <tr><td style="text-align: left;">6.00 to 6.99</td><td style="text-align: right;">.35</td></tr> <tr><td style="text-align: left;">7.00 to 7.99</td><td style="text-align: right;">.40</td></tr> </table>	Less than \$1.00	.05	\$1.00 to 1.99	.10	2.00 to 2.99	.15	3.00 to 3.99	.20	4.00 to 4.99	.25	5.00 to 5.99	.30	6.00 to 6.99	.35	7.00 to 7.99	.40
Less than \$1.00	.05																
\$1.00 to 1.99	.10																
2.00 to 2.99	.15																
3.00 to 3.99	.20																
4.00 to 4.99	.25																
5.00 to 5.99	.30																
6.00 to 6.99	.35																
7.00 to 7.99	.40																

Daylight bulbs will be furnished clear or inside frosted according to the basic lamp listed, at the following list additional charges	Bulb	Day-light	Nat'l Colored	
			Amber, Blue, Green	Ruby
<p><i>Natural Colored</i> bulbs are furnished in the manufacturer's standard colors only. Natural colored lamps are regularly furnished in clear bulbs; for "A" bulb lamps listed inside frosted, the natural colored additional charges will apply to the list price of the inside frosted lamp, there being no additional charge for the use of the clear bulb. Natural ruby and natural amber lamps are regularly furnished in light shade. Dark ruby and dark amber lamps used in photographic work will be furnished only when definitely specified, and at the same prices as the corresponding light shade lamps. Natural blue does not include daylight or photographic blue.</p> <p>Daylight and Natural Colored features do not apply to lamps listed with heat-resisting glass bulbs.</p>	A-17, 19 . . .	\$0.25	\$0.40	\$0.60
	A-21 . . . . .	.30	.45	.65
	A-23 . . . . .	.35	.55	1.00
	PS-25 . . . . .	.50	.60	1.20
	S-11 . . . . .	.30		
	S-14 . . . . .		.40	.60
	T-6 1/2 . . . . .	.30		
	T-10 (5 5/8"			
	M. O. L. or less) . . . . .	.30		

Unskirted Medium Screw Base Lamps may be furnished in Left Hand Medium Screw or Medium Bayonet bases for \$0.10 list additional charge.

Train Lighting Lamps may be furnished in 30- and 60-volts at the same prices as the respective 32- and 64-volt lamps listed herein.

End Etching of Letters or Designs must be located diametrically opposite the base and be designed to permit the customer etching and the company etching to be performed in one operation. Letters must be limited to gothic style. Lamps with bulbs of less than 1 3/8" diameter or those having pointed or irregular ends cannot, in general, be end etched. End etching will be applied to the inside of the bulb, if practicable, but for coated colored lamps or those having bulbs less than 1 3/4" in diameter, inside etching is not practicable and outside end etching will be used. The additional charge for end etching is \$0.003 per lamp, list, plus a net charge of \$1.50 per order.

1. Orders for end etched lamps may be accepted, without etching order charge, at a list additional charge per lamp of \$0.003 from purchasers under contract provided the purchaser places a firm order for not less than 10,000 etched lamps for immediate delivery. Provided the purchaser agrees in writing to take and pay for not less than 10,000 etched lamps in any one month, orders covering such lamps may be accepted without etching order charge in that particular month, at a list additional charge per lamp of \$0.003.

An "Order" for etched lamps shall include only lamps ordered at one time for immediate delivery to a single customer. For any single type of etching, for a single customer, different types of lamps may be combined in a single order. Because of the high cost of handling small orders for customer etched lamps, the full agency compensation will not be allowed, and the agent's compensation shall be reduced by an amount equal to \$1.50 for each order placed by the agent for customer etched lamps, except orders covered by Paragraph 1.

Where purchasers under contract request that either the manufacturer or the agent carry a stock of etched lamps, the purchaser will be required to furnish in writing the quantities and specifications of such lamps and to agree in writing to order and pay for lamps remaining in stock at expiration of the contract in accordance with the terms of the contract. *Order etched lamps from the factory making the basic lamp.*

G-E LAMPS



Stay Brighter Longer

LAMP DEPARTMENT
GENERAL ELECTRIC
 COMPANY

SALES DISTRICTS
 (To Obtain Sales and Technical Information)

CITY

SERVICE DISTRICTS
 (To Order Lamps and to Obtain Shipping
 and Accounting Information. Local Ware-
 house Stocks maintained at these Points)

(Zone)				(Zone)	
187 Spring St., N. W. 3	WAlnut 9767	ATLANTA, GA.	488 Glenn St., S. W. —	WAlnut 9769	
50 High St. 10	HANcock 1680	BOSTON, MASS.	27 Burlington Ave. 15	COM'w'h 0215	
901 Genesee Bldg. 2	CLeveland 3400	BUFFALO, N. Y.	901 Genesee Bldg. 2	CLeveland 3400	
516 Johnston Bldg. 2	4-8614	CHARLOTTE, N. C.	Atlanta Service District		
231 So. LaSalle St. 4	DEArborn 4712	CHICAGO, ILL.	431 W. Pershing Rd. 9	BOULevard 7100	
36 E. Fourth St. 2	DUbar 2460	CINCINNATI, OHIO	Cleveland Service District		
1320 Williamson Bldg. 14	CHerry 1010	CLEVELAND, OHIO	1133 E. 132nd St. 10	LIberty 1700	
1801 North Lamar St 2	Central 7711	DALLAS, TEXAS	1801 North Lamar St. 2	Central 7711	
1863 Wazee St. 2	MAin 6141	DENVER, COLO.	1863 Wazee St. 2	MAin 6141	
1400 Book Tower 26	CHerry 6910	DETROIT, MICH.	1448 Wabash Ave. 16	RAndolph 9650	
200 East 16th Ave. 16	NOrcley 3568	N. KANSAS CITY, MO.	200 East 16th Ave. 16	NOrcley 3568	
601 West Fifth St. 13	MiChigan 8851	LOS ANGELES, CALIF.	1835 Industrial St. 21	TUcker 2463	
500 Stinson Blvd. 13	GRanville 7286	MINNEAPOLIS, MINN.	500 Stinson Blvd. 13	GRanville 7286	
570 Lexington Ave. 22	Wickersham 2-6300	NEW YORK, N. Y.	133 Boyd St. (Newark, N. J.) 3	BIgelow 3-4500	
1614 Campbell St. 7	Highgate 4-7340	OAKLAND, CALIF.	1614 Campbell St. 7	Highgate 4-7340	
1405 Locust St. 2	KIngsley 5-3336	PHILADELPHIA, PA.	32nd and Walnut Sts. 4	EVerg'n 6-9600	
535 Smithfield St. 22	GRant 3272	PITTSBURGH, PA.	601 E. General Robinson St. 12	FAirfax 9973-4-5	
1238 N. W. Glisan St. 9	BEacon 2101	PORTLAND, ORE.	1238 N. W. Glisan St. 9	BEacon 2101	
710 No. Twelfth Blvd. 1	CHestnut 8920	ST. LOUIS, MO.	710 No. Twelfth Blvd. 1	CHestnut 8920	

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