Westinghouse

LAMP DIVISION

- BLOOMFIELD, N. J.
- BELLEVILLE, N. J.
- TRENTON, N. J.
- LITTLE ROCK, ARK.
- FAIRMONT, W. VA.
- RICHMOND, KY.
- BOWLING GREEN, KY.
- PARIS, TEXAS
- REFORM, ALA.


UNIVERSITY LAMP

Welcome to the Westinghouse Lamp Division.

We feel privileged to introduce you personally to this fascinating business of See-Ability.

And, we extend to you our further invitation to "tour," by means of this booklet, the manufacturing facilities of the Westinghouse Lamp Division.

Ralph Stuart

Vice President

SEE-ABILITY IS OUR BUSINESS . . . . . .

For the Westinghouse Lamp Division, this business of See-Ability encompasses more than 10,000 different types of lamps. From ball parks to bombers, tanks to toys, homes to highways . . . for every lighting application there is a specific Westinghouse lamp.

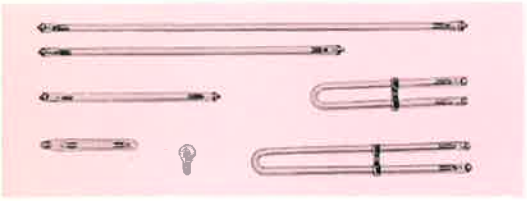
There is a Westinghouse lamp as large as a basketball . . . a giant 10,000 watt lamp used for special floodlighting purposes. At the other extreme, there is a tiny Westinghouse lamp the size of a grain of wheat . . . a 1/10-watt lamp used in medical instruments.

But, of all the thousands of lamp types made by Westinghouse, standard incandescent lamps like these head the list in quantity produced . . .

THERE ARE ALSO . . . .

Heat-producing infra-red lamps for farm and home and husky infra-red heat and drying lamps for industrial use . . .

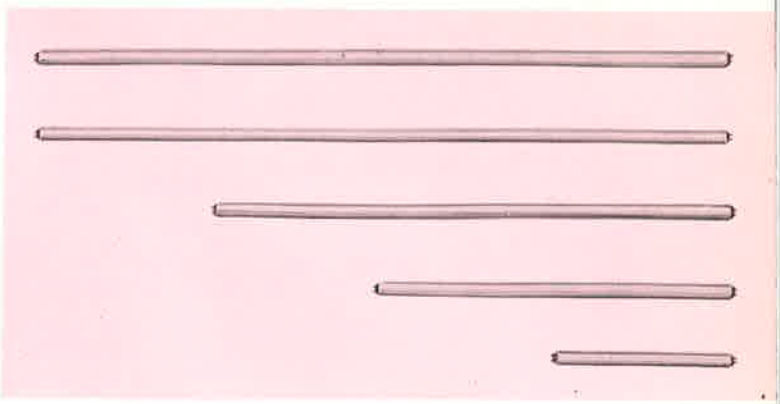
Mercury vapor lamps for brilliant lighting, better See-Ability indoors and out, in industrial plants or in motion picture and television studios.



Ultra-violet lamps ranging from these germicidal Sterilamps whose bacteria destroying power is used in air conditioning, food processing, and in home and industry . . .

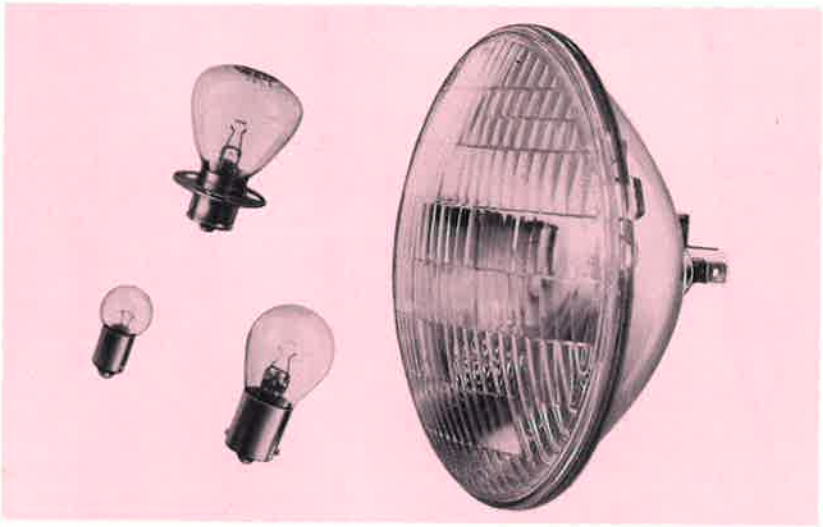
. . . to Sun Lamps like the new Westinghouse Fluorescent Sun Lamp or the standard RS Sun Lamp for use in any standard light bulb socket. Sun lamps like these make possible healthy tans the year 'round and offer the benefit of ultra-violet rays . . .

Fluorescent lamps in a wide range of colors and sizes . . .



There are also WESTINGHOUSE LAMPS for PHOTOGRAPHY...

WESTINGHOUSE LAMPS For AUTOMOTIVE USE...



And decorative applications such as CHRISTMAS LIGHTING...

Yet, these are but a small portion of the many types of lamps manufactured in this business of See-Ability.

RESEARCH and ENGINEERING...

a story of discovery and design

The role of research and engineering in this business of See-Ability is one of three-fold importance: the discovery and design of new types of lamps; continual research to improve existing lamp types; solving manufacturing problems through the design of special equipment used to manufacture lamps.

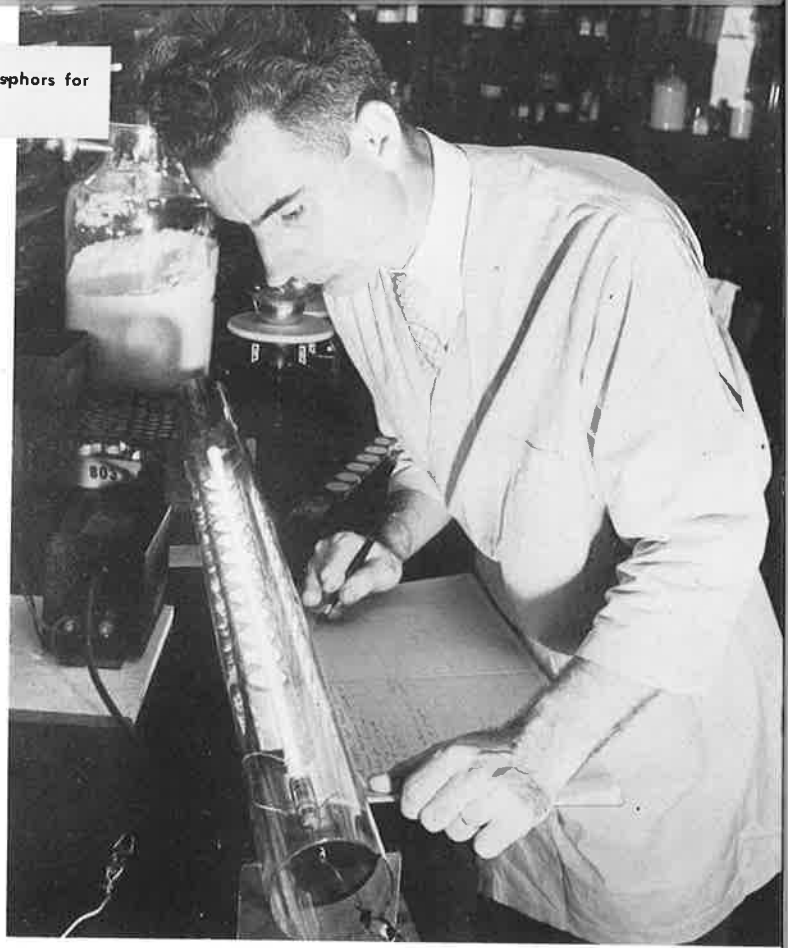
Discovery and development of new products is dramatized by such products as the Sterilamp, the Fluorescent Sun Lamp, photo-chemical mercury vapor lamps, color-corrected mercury vapor lamps, gun sight lamps, Christmas tree lamps with new colors and finishes, and smaller size reflector photofloods.

Incandescent and fluorescent lamps are examples of the way never-ending research has improved existing products. For more than fifty years, Westinghouse has successfully coped with the problem of producing light sources supplying better and more light at lower cost. In 1907, when the tungsten filament lamp replaced the carbon lamp, it sold for $1.75 in the 60-watt size. Today a bright, long-lasting 60-watt lamp costs only 14 cents and produces almost twice as much light as its predecessor. Constant research has been responsible for an average yearly increase in incandescent lamp efficiency of approximately one percent per year.

The fluorescent lamp has been improved tremendously in the 12 years it has been on the market. These improvements are in the form of better colors of light as well as more efficiency of light through the use of new types of phosphors, improved electrodes, and different gas mixtures. The rated life of most standard fluorescent lamps today is 7,500 hours, as compared with a rating of 1,500 hours in 1939.

Testing and inspection of lamps during and after manufacture also play an important part in the improvement of existing lamp types. Before Westinghouse lamps leave the factory, each package is subject to sampling and inspection. In all, Westinghouse lamps undergo 480 tests and inspections from raw materials to finished product.

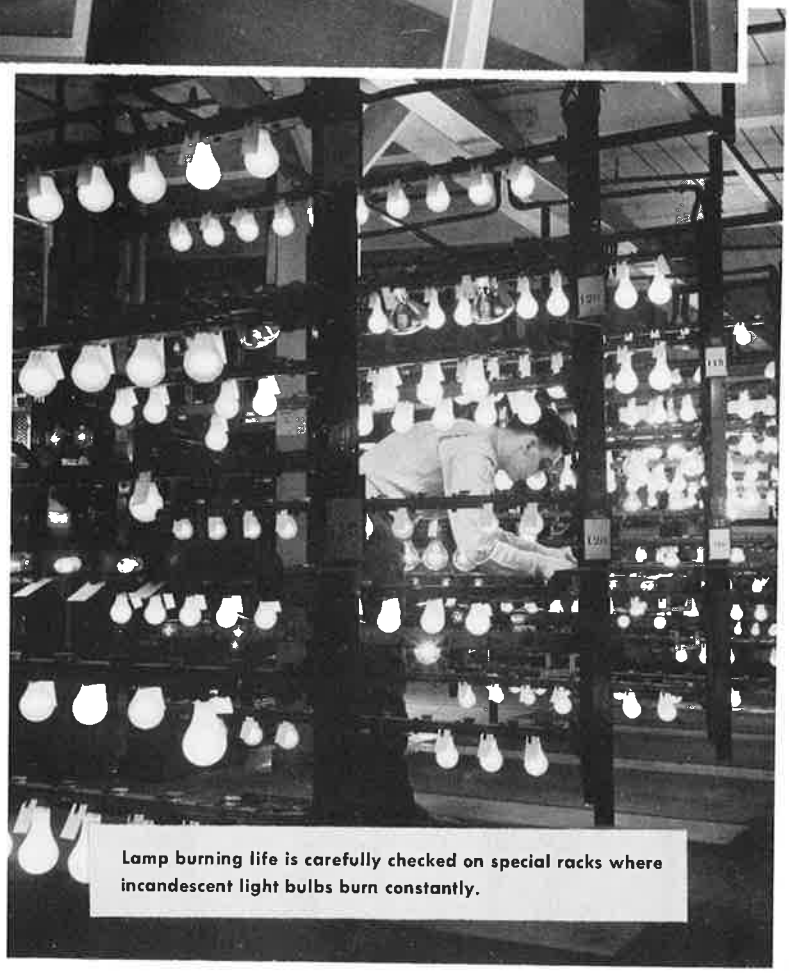
An entire department in Bloomfield is a veritable chamber of horrors for lamps of all sorts. Thousands are burned on racks until they are dead. Some are burned at overvoltage. Samples are put on wheels to burn in all possible positions. They are bounced, shaken and thumped mechanically. Minute records of each lamp's reactions are catalogued to help in perfecting products.



Research engineer examines various types of phosphors for possible use in improving fluorescent lamps.

Light output of fluorescent lamps is measured in a giant sphere with highly reflecting interior surfaces.

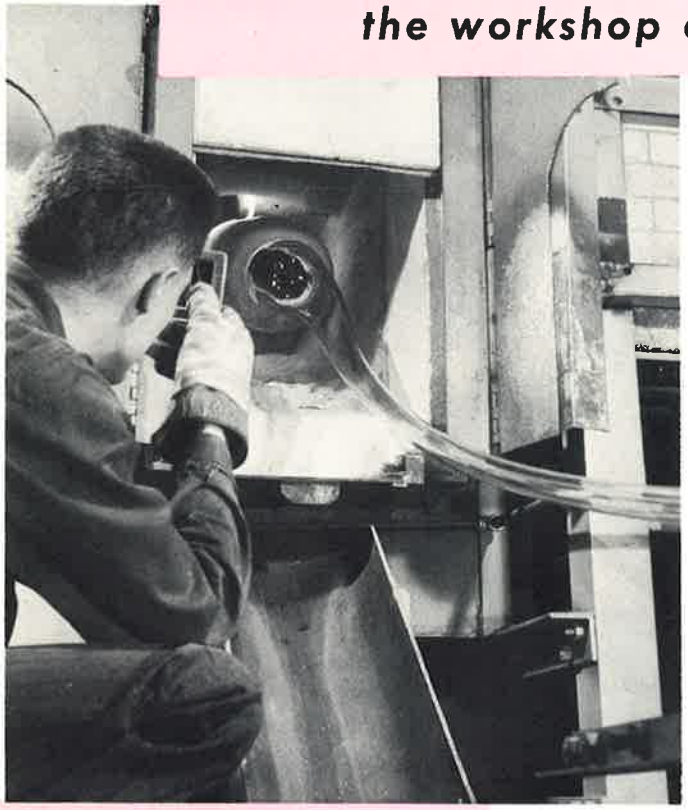
Rough service lamps are jolted in this cage to insure that their performance lives up to their name.



Lamp burning life is carefully checked on special racks where incandescent light bulbs burn constantly.

LAMP MANUFACTURING

the workshop of See-Ability . . .



The beginning of a fluorescent lamp . . . a tube of glass flows from a furnace at the Fairmont, W. Va., plant.

Bases for incandescent lamps are turned out by automatic machines like this at the Belleville, N. J., plant.

Tubes of glass soon to become fluorescent lamps are coated with light-producing phosphors.

Automatic "Sealex" machines like this one at the Bloomfield, N. J., plant exhaust and seal incandescent light bulbs. One machine is capable of turning out 9,000 bulbs on just one shift.

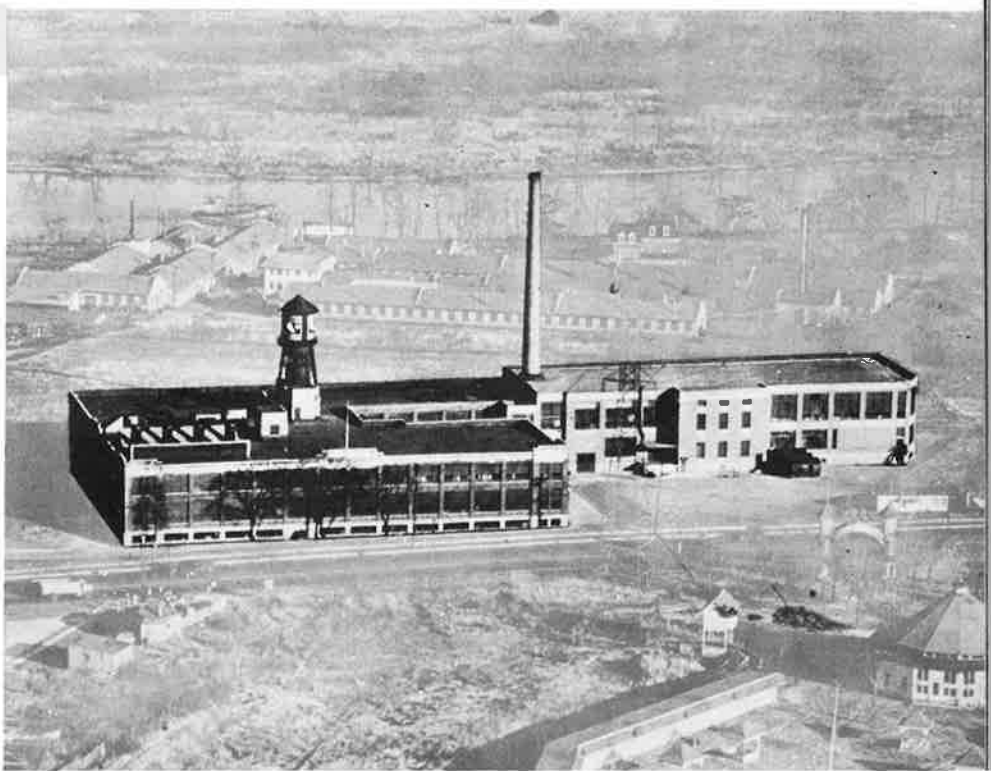
BLOOMFIELD, NEW JERSEY

Bloomfield is headquarters for the country-wide facilities of the Westinghouse Lamp Division. Here, in addition to spacious lamp manufacturing facilities, are the executive offices of Sales, Commercial Engineering, Engineering, Research, and Advertising and Sales Promotion.

Manufacturing activities are carried on in ten factory buildings containing one million square feet of floor space. Operations include wire drawing, machine design and fabrication, experimental development, and mass production of many types of incandescent lamps. At present, Electronic Tube Division manufacturing is also carried on here. In the near future, electronic tube manufacturing will be transferred to new plants to be erected for that Division in Elmira, New York.

BELLEVILLE, NEW JERSEY

Conveniently located a few miles from Bloomfield, the Belleville plant of the Westinghouse Lamp Division is fully equipped to manufacture a wide variety of bases for lamps. This plant manufactures bases for large, miniature, and fluorescent lamps as well as special bases for electronic tubes. The Belleville plant is capable of producing 30 million lamp bases per month.

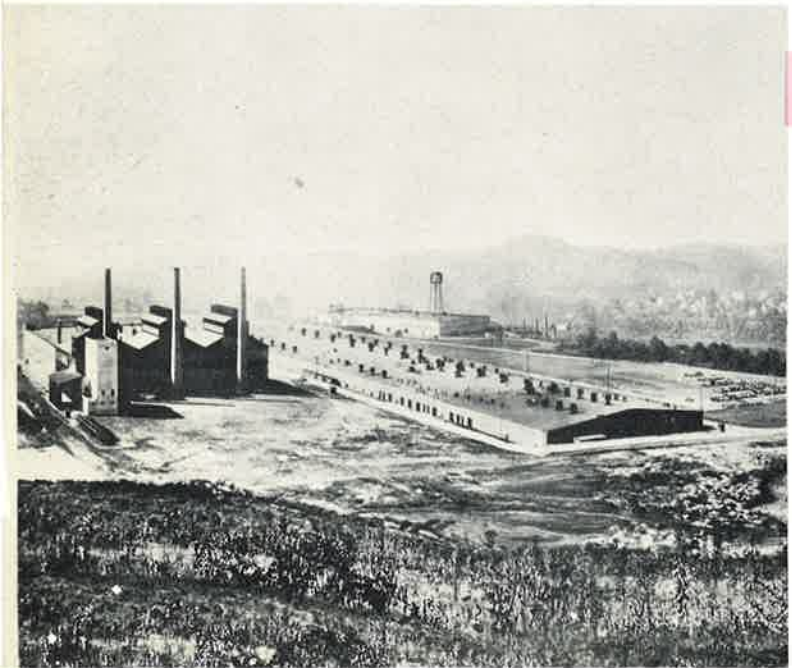


LITTLE ROCK, ARKANSAS

The modern plant at Little Rock was opened early in 1948, and recently a 100,000 square foot wing was added to increase manufacturing capacity. This plant is devoted to the production of incandescent lamps for home and industry. With the addition of the new wing, production of household type light bulbs at Little Rock is second only to that in Trenton, New Jersey, where the Westinghouse plant produces more light bulbs than any other single plant in the country.

TRENTON, NEW JERSEY

The Trenton plant of the Westinghouse Lamp Division is devoted exclusively to the manufacture of household type lamps. The output of this plant is so great that it ranks as the nation's top light bulb producer. Also located in Trenton, convenient to all transportation facilities, is a lamp warehouse with a total of 265,000 square feet of storage facilities.



FAIRMONT, WEST VIRGINIA

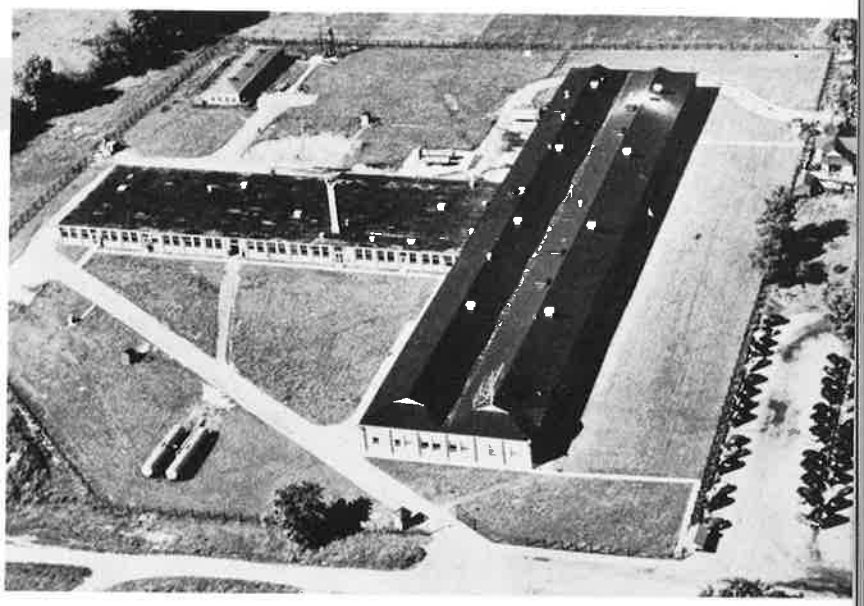
In Fairmont, Westinghouse operates the world's largest fluorescent lamp manufacturing plant. An adjoining plant supplies glass tubing for both incandescent and fluorescent lamps. Automotive sealed beam headlamps are also produced at the Fairmont plant.

RICHMOND, KENTUCKY

Westinghouse produces miniature lamps in its modern plant at Richmond. Flashlight, radio panel, Christmas tree, and automobile lamps are the types manufactured here. The one-story "L" shaped building has a total floor space of 75,000 square feet and is equipped with the latest in automatic lamp-making machinery.

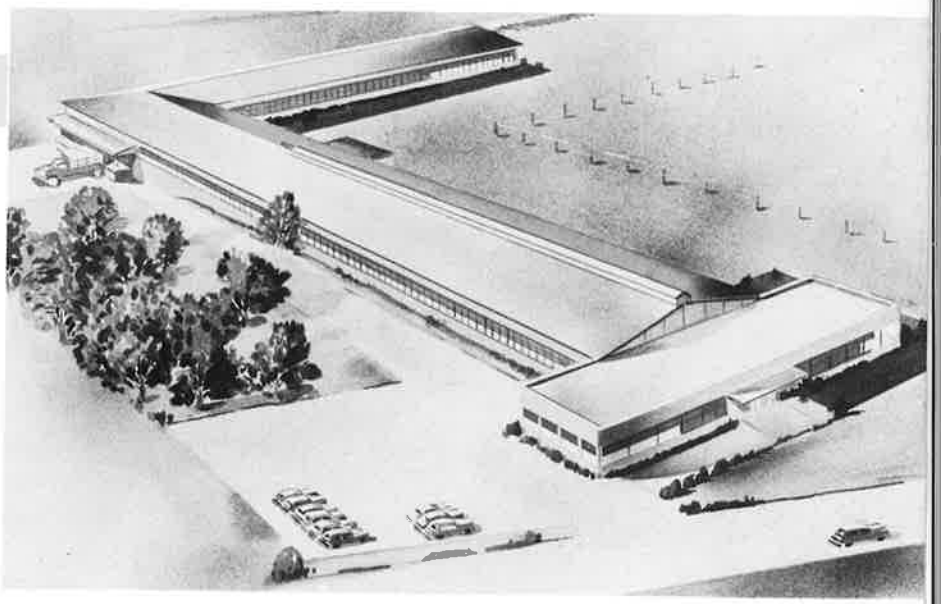
BOWLING GREEN, KENTUCKY

The Bowling Green plant was added by the Westinghouse Lamp Division in 1950 for increased photoflash bulb production. The 90,000 square feet of floor space in this new plant, equipped with modern production equipment, have enabled Westinghouse to double its output of flash bulbs.



PARIS, TEXAS

Late in 1950 Westinghouse announced plans to erect a new lamp plant at Paris. When completed, the new plant will be in the form of a modern one-story building with 75,000 square feet of floor space. The plant will be devoted to manufacturing of wire for filaments, coils, lead wires, gasses for lamps, chemicals, and other lamp components.



REFORM, ALABAMA

Newest of all Westinghouse Lamp Division plant sites, the Reform plant will be the first Westinghouse light bulb plant in Alabama. The location provides convenient transportation and offers an abundant supply of natural gas which is essential in the manufacture of light bulbs.

WESTINGHOUSE LAMP DIVISION

SALES OFFICES and WAREHOUSES . . .

● District Offices

■ Branch Sales Offices

▲ Warehouses

NEW ENGLAND DISTRICT	BELMONT, MASS.
EASTERN DISTRICT	NEW YORK, N. Y.
CENTRAL DISTRICT	PITTSBURGH, PA.
MIDDLE ATLANTIC DISTRICT	PHILADELPHIA, PA.
SOUTHEASTERN DISTRICT	CHAMBLEE, GA.
SOUTHWESTERN DISTRICT	ST. LOUIS, MO.
NORTHWESTERN DISTRICT	CHICAGO, ILL.
PACIFIC COAST DISTRICT	SAN FRANCISCO, CAL.

Westinghouse
LAMP SALES OFFICES

Albany 4, N. Y.	454 N. Pearl St.
Allentown, Pa.	739 Hamilton St.
Amarillo, Texas	301 Polk St.
Atlanta, Ga.	(See Chamblee, Ga.)
Baltimore 2, Md.	501 St. Paul Place
Belmont 78, Mass.	30 Brighton St.
Birmingham 1, Ala.	P. O. Box 1814 (107 Dale Ave., Homewood 9, Ala.)
Boston, Mass.	(See Belmont, Mass.)
Buffalo 3, N. Y.	814 Ellicott Sq. Bldg.
Chamblee, Ga.	2260 Peachtree Industrial Blvd.
Charlotte 2, N. C.	1908 Liberty Life Bldg.
Chicago 54, Ill.	Mdse. Mart Plaza
Cincinnati 2, Ohio	207 W. Third St.
Cleveland 13, Ohio	1370 Ontario St.
Columbus 15, Ohio	262 N. 4th St.
Dallas 1, Texas	209 Browder St.
Davenport, Iowa	2212 E. 12th St., P. O. Box 29
Dayton 2, Ohio	32 North Main St., 834 Third National Bldg.
Decatur, Ga.	239 N. Columbia Circle
Denver 2, Colo.	910 Fifteenth St.
Des Moines, Iowa	1400 Walnut St.
Detroit 31, Mich.	5757 Trumbull Ave.
Ft. Wayne, Ind.	610 S. Harrison St.
Ft. Worth 2, Texas	1310 Electric Bldg.
Harrisburg, Pa.	2015 N. Second St.
Hartford 3, Conn.	119 Ann St.
Houston 2, Texas	1314 Texas Avenue
Huntington 1, W. Va.	1029 Seventh Ave., P. O. Box 1150
Indianapolis 9, Ind.	137 S. Pennsylvania St.
Kansas City 6, Mo.	101 W. Eleventh St.
Little Rock, Ark.	Woodrow and Roosevelt Rd.
Los Angeles 14 , Cal.	600 St. Paul Ave.
Louisville 2, Ky.	332 West Broadway
Memphis 3, Tenn.	130 Madison Ave., 825 Exchange Bldg.
Milwaukee 2, Wis.	538 N. Broadway
Minneapolis 8, Minn.	727 Second Ave., No.
Nashville, Tenn.	2908 Woodlawn Drive (P. O. Box 315)
New Haven 10, Conn.	42 Church St.
New Orleans 13, La.	238 So. Saratoga St., 611 Industries Bldg.
New York 5, N. Y.	40 Wall St.
Newark, N. J.	528 Ferry St.
Oklahoma City 2, Okla.	120 N. Robinson St.
Omaha 2, Nebr.	117 North Thirteenth St.
Peoria, Ill.	114 Callendar St.
Philadelphia 4, Pa.	3001 Walnut St.
Pittsburgh 22, Pa.	337 Blvd. of Allies
Pittsburgh (McKees Rocks, Pa.)	McKee and Leonard Sts.
Portland 4, Ore.	309 S. W. Sixth Ave., 914 U. S. Bank Bldg.
Providence, R. I.	51 Empire St.
Richmond 16, Va.	1110 E. Main St., 218 Travellers Bldg.
Roanoke 4, Va.	Kirk Ave. and First St., P. O. Box 599
Rochester 7, N. Y.	1048 University Ave.
Sacramento, Cal.	1720 14th St.
Saginaw, Mich.	124 S. Jefferson
St. Louis 1, Mo.	411 North Seventh St.
Salt Lake City 1, Utah	235 West South Temple St.
San Antonio 5, Texas	115 West Travis St.
San Diego 1, Cal.	861 Sixth Ave.
San Francisco 8, Cal.	410 Bush St.
Seattle 9, Wash.	1200 Westlake Ave., North
Spokane 8, Wash.	1023 W. Riverside Ave.
Springfield 3, Mass.	26 Vernon St.
Syracuse 4, N. Y.	700 W. Genesee St.
Tampa, Fla.	405 Wallace S. Bldg.
Tulsa 3, Okla.	600 S. Main St.
Washington 6, D. C.	1625 "K" Street, N.W.
Wichita 2, Kansas	301 S. Market St.
Wilkes-Barre, Pa.	267 N. Pennsylvania Ave.

LAMP RESEARCH and DEVELOPMENTS
BY WESTINGHOUSE SINCE OCTOBER 1, 1945

LAMP	SERVICE
250 Watt R-40 Red Heat Ray	Heat & Drying
1 Watt Nite Lite Fluorescent	Nite Light
WL-794 Sterilamp	Refrigerators, etc.
1000 Watt AH-12 Mercury	High Bay Lighting
1000 Watt BH-12 Mercury	Black Light
400 Watt EH-1 Mercury (Improved)	St. Lighting
3 KW BH-9 Mercury	Photo Chemistry
Reduction in size P-25 to A-21—all 108 Watt or less Type C Lamps	General Lighting
Railway Signal Lamps—Reduction in size S-11 to S-8	Railway Signal
4535 PAR-46 Spotlight	Automotive
150 Watt PAR-46 Headlight	Mine Locomotive
300 Watt T-12 Projection	Projection
300 Watt R-40 Special Service (Hard Glass)	Outdoor Spot & Flood Ltg.
WL-782 L-30 Sterilamp	General
WL-782 H-30 Sterilamp	High Ozone
WL-782 H-10 Sterilamp	Special Applications
18 Watt Circlarc Fluorescent	General Lighting
75 Watt R-30 Spot & Flood	General Lighting
G36T-6 Sterilamp	Air Conditioning
95 Watt 6.6A PAR-46	Aviation Runway Marker
300 Watt PAR-64	Aviation Runway Marker
25 Watt Fluorescent	General Lighting
75 Watt Reduction in size A-21 to A-19	General Lighting
2500 Lu. 20 Amp. St. Ltg.	Street Ltg.
4435 PAR-46 Spot Lamp	Automotive
20 Watt & 40 Watt Fluorescent Sun Lamps	Sun Lamps
1750 Watt PS-52 Sports Ltg. Lamp	Flood Lighting
150 Watt R-40 Colored Bowl Lamps	Display Lighting
10 KW Short Arc Cadmium Mercury	High Intensity Lighting
75-Watt PAR-38 Spot & Flood Lamps	Outdoor Spot & Flood Ltg.
100 Watt-KH-4 Mercury	St. Lighting
Color Corrected Mercury	Gen. Ltg. & Television Ltg.
Cadmium Mercury	Gen. Ltg. & Television Ltg.

LAMP	SERVICE
FGL-1 Krypton Flashing Lamp	Aviation Approach Lighting
FGL-2 Neon Flashing Lamp	Aviation Approach Lighting
Permanent Red Lens, 4013R, 4535R, 4510R, 4030R, 4515R	Emergency Warning Light
150 Watt Reduction in size PS-25 to A-23 General Ltg.	General Lighting
48"-72"-96" Slimline 400-600 MA	General Lighting
#4518 PAR-36 Bicycle Headlight	Headlight
150 R-40 Hi-Temp Spot & Flood	High Ambient Temp.
300 R-40 Hi-Temp Spot & Flood	High Ambient Temp.
Improved Med. Bipin Fluorescent Lamp Base	General Lighting
3 KW CH-9 Mercury	Photochemistry & Blueprinting
940W AH-14 Mercury	Photochemistry & Blueprinting
800 Short Arc Mercury	Searchlight
10W C-7 Vibration Service Lamp	Vibration
90W T-17 60" Krypton-Argon Fluorescent	Gen. Lighting
300W R-30 Photo Flood	Photography
"Flashure" Battery Indicator Lamps S-14 & G-6	Photography
1800W 117V PS-52 Sports Spotlight	Sportslighting
2.7V .15A S-8 IF	Railway Signal
3.5V .12A S-8 IF	Railway Signal
Glama-Lites	Xmas Tree Lighting
Permacote Lamps	Xmas Tree Lighting
100W A-21 Rough Service	Rough Service
500W PAR-38 Photospot & Photoflood	Photography
#1002 Courtesy Lamp	Automotive
#4506 PAR-36 Hand Lantern	Emergency Lighting
75W 24-28V PAR-36	Aviation-Passing Lamp
100W R-30 Rough Service	Rough Service—Navy
150W R-40 Rough Service	Rough Service—Navy
200W R-40 Rough Service	Rough Service—Navy
525, 800 & 1100W R-57	High Bay Lighting
Transparent Colored Bowl R-40 (Replacing Translucent Coated Lamps)	Display Lighting
40W R-20 Ref. Flood & Ref. Spot	Gen. Lighting
40W R-20 Ref. Flood Rough Service	Rough Service—Navy
JH-1 Color Corrected Mercury	General Lighting

LITHO IN U. S. A.

APRIL 1951