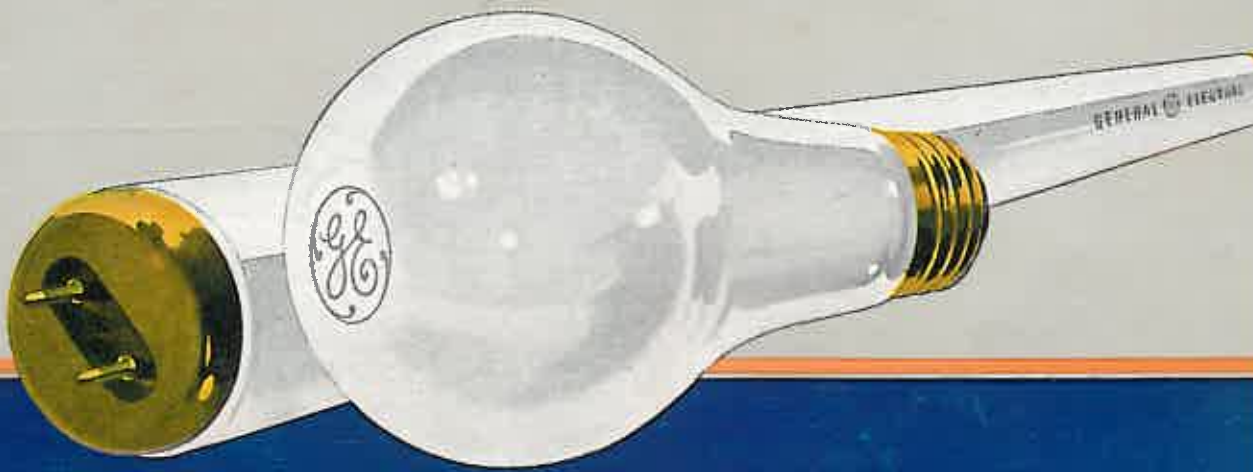
FILAMENT • FLUORESCENT • MERCURY • INFRARED • SUN • GERMICIDAL

LARGE Lamp CATALOG



GENERAL ELECTRIC

1948

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

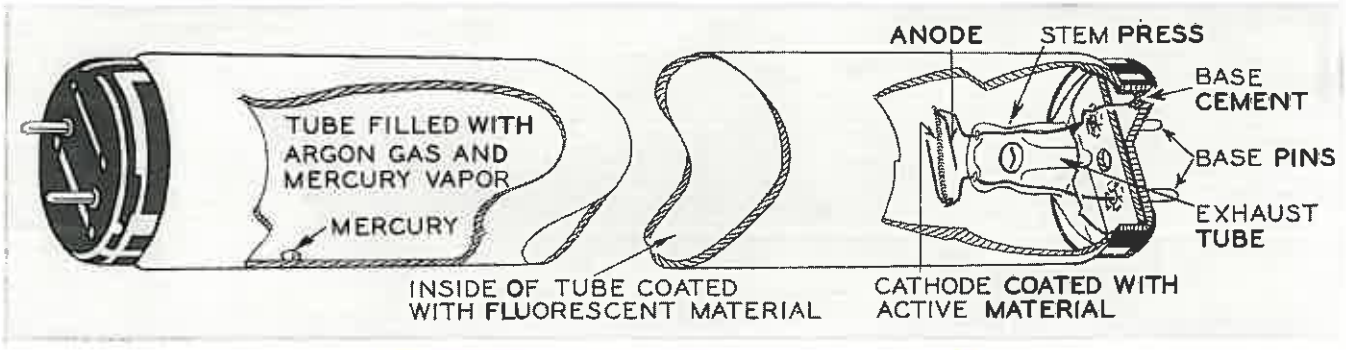
COMPANY

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:

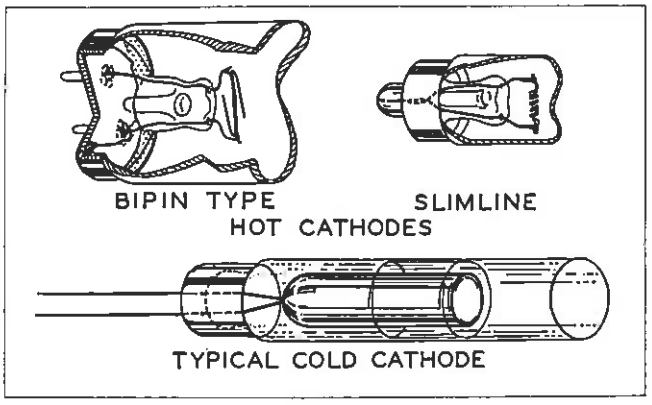
(1) General Line Fluorescent Lamps.
These types of fluorescent lamps with bipin bases are most widely used for general lighting. Most sizes are available in several colors.

(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.



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 2537Å 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.

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

Lamps shown approximately 1/6 actual size.

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.

G-E LAMPS

Stay Brighter Longer

LAMP DEPARTMENT

GENERAL ELECTRIC COMPANY

SALES DISTRICTS (To Obtain Sales and Technical Information)	(Zone)		CITY	SERVICE DISTRICTS (To Order Lamps and to Obtain Shipping and Accounting Information. Local Warehouse Stocks maintained at these Points)	(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	COMw'th 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	DUnbar 2460	CINCINNATI, OHIO	Cleveland Service District		
1320 Williamson Bldg.	14	CHerry 1010	CLEVELAND, OHIO	1133 E. 152nd 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	NOrclay 3568	N. KANSAS CITY, MO.	200 East 16th Ave.	16	NOrclay 3568
601 West Fifth St.	13	MIchigan 8851	LOS ANGELES, CALIF.	1855 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

Printed in U. S. A. A-80

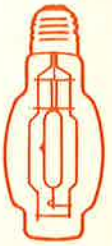
GENERAL OFFICES, NELA PARK, CLEVELAND 12, OHIO

FILAMENT

FLUORESCENT

INFRARED

MERCURY



SUN

GERMICIDAL

OZONE

CATALOG OF LARGE *Lamps*

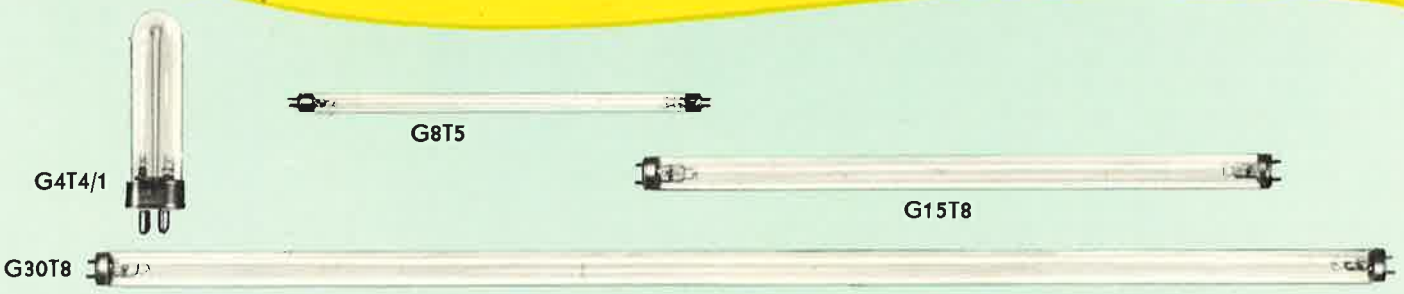
Progress Is Our Most Important Product

GENERAL ELECTRIC

1956

Edison's incomparable skill and genius and his tireless research efforts produced the first practical incandescent lamp. This first unit of the industry also laid the pattern for General Electric lamp development laboratories and research programs from which have come many memorable achievements that highlight three quarters of a century of continuous progress.

G-E GERMICIDAL LAMPS



Germicidal lamps provide 2537°A ultraviolet, effective in destroying molds and bacteria. They have wide application in hospital nurseries, contagious wards and surgeries, as well as in schools, offices, theatres and other places where air sanitation is needed. They also provide product protection for foods, pharmaceuticals and beverages. On farms they offer an important supplement to the usual sanitation methods practiced by poultrymen, dairymen, and stock raisers.

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

Lamp Ordering Abbreviation	Watts	Bulb	Base	Std. Pkg. Qty.	Approx. Hours Life	Max. Ovrl. Lgth.
G4T4/1	4	T-4 ★	Oval Small 4-Pin	24	5000①	5⅜
G8T5	8	T-5	Min. Bip.	24	5000②	12
G15T8	15	T-8	Med. Bip.	24	7500②	18
G30T8	30	T-8	Med. Bip.	24	7500②	36

① Life under specified test conditions with lamps turned off and restarted no oftener than once every three burning hours.
② Life under specified test conditions with lamps turned off and restarted no oftener than once every 8 burning hours.
★ Bent tube construction

G-E OZONE LAMP

OZ4S11

Short-wave ultraviolet from the General Electric ozone lamp passes through the special lamp bulb and acts on the oxygen in the air to form ozone. Ozone occurs outdoors — particularly after an electrical storm. It has a pleasant odor which masks many objectionable odors.

The G-E Ozone Lamp will banish the odors in rooms — particularly the odors a short time after cooking. It will reduce mustiness and the stale after-odors of tobacco smoke. Ozone lamps are generally operated in shielded fixtures mounted on the wall just above eye level.

Caution: Never use more than one lamp per thousand cubic feet of space in an inhabited room. Do not use in nurseries, sickrooms, or in atmospheres containing the vapors of chlorinated hydro-carbons (carbon tetrachloride, for example). Rays of lamp must be shielded from direct view. If not, ordinary glasses and clothing should be worn to protect eyes and skin.

A ballast must be used with the ozone lamps — G-E catalog number 89G504 is available for operation on 110-125-volt, 60-cycle current. A standard 40-watt filament lamp may also be used as a ballast.

OZONE LAMPS

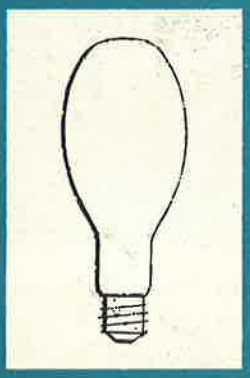
Lamp Ordering Abbreviation	Watts	Bulb	Base	Description	Std. Pkg. Qty.	Approx. Hours Life	Max. Ovrl. Lgth.
OZ4S11	4	S-11	Inter.	Clear	120	4000①	2¼

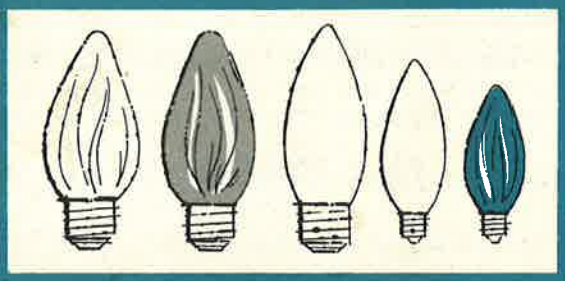
① Approximate life under specified test conditions with continuous burning.

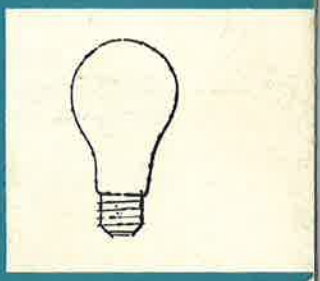
FORM
9200
PRICES EFFECTIVE
JULY 28, 1969

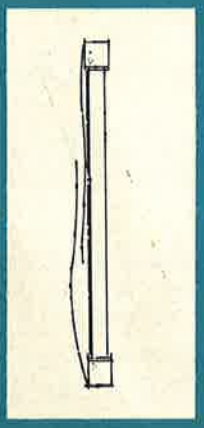
LARGE LAMP CATALOG

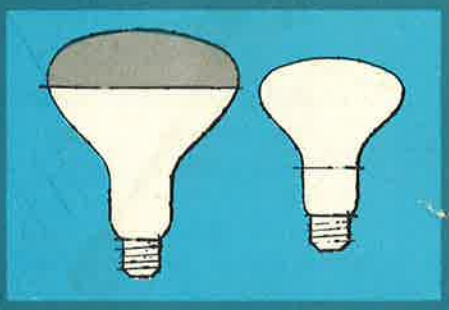
AND LIST PRICES

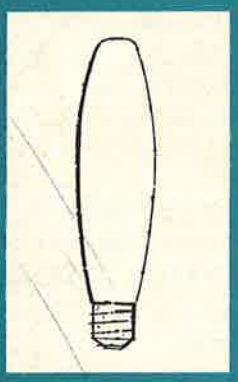












GENERAL ELECTRIC

1969

GENERAL ELECTRIC LARGE LAMPS

ALL-WEATHER™ FLUORESCENT LAMPS (No Starters Used)

Nominal Lamp Watts (320)	Bulb	Nominal Length Inches (300)	Base	Lamp Ordering Code	List Price	Description (See Fluorescent Footnotes)	Std. Pkg. Qty.	Rated Life Hours (301, 318)	Approx. Initial Lumens (302) Peak (320)	Approx. Initial Lumens (302) 77°F Still Air
T-10 Approx. 1¼" Diameter For 1500ma Operation										
205	T-10	96	Rec. Double Contact	F96T10/CWX	$6.35	Deluxe Cool White	12	9000	9700	7900
				FR96T10/CW	7.43	Cool White-Reflector, 180° Window (308)	12	9000	10980	9000
				F96T10J/CW	6.80	Cool White-T-14 jacket	8	9000	12900	7700
				F96T10J/CWX	10.45	Deluxe Cool White-T-14 jacket	8	9000	9600	5700

PANEL FLUORESCENT LAMPS—Rapid Start

Nominal Lamp Watts (321)	Bulb	Nominal Length Inches (322)	Base	Lamp Ordering Code	List Price	Description (See Fluorescent Footnotes)	Std. Pkg. Qty.‡	Rated Life Hours (301)	Approx. Total Lumens (302)	Approx. Lu. at 40% Rtd. Avg. Life
80	SP	12	Recessed Bipin	FP12S/CW	$19.95	Cool White	6	12000	3000	2590
			Recessed Bipin	FP12S/DX	20.45	Panel Deluxe	6	12000	2550	2200
			Recessed Bipin	FP12S/DXC	20.45	Panel Deluxe Cool	6	12000	2500	2160

GERMICIDAL LAMPS

Nominal Lamp Watts	Bulb	Base	Lamp Ordering Code	List Price	Description (See Fluorescent Footnotes)	Std. Pkg. Qty.‡	M. O. L.	Rated Life Hours
4	S-11	Inter.	G4S11	$1.60	Clear-Ozone Producer	120	2¼	6000(327)
7	T-4	4-Pin	G4T4/1	6.20	Clear-U-Shape	24	5¼	3500
8	T-5	Med. Bipin	G8T5	5.10	Clear	24	12	7500
T-8 Approx. 1" Diameter								
15	T-8	Med. Bipin	G15T8	5.10	Clear	24	18	7500
25	T-8	Med. Bipin	G25T8	5.10	Clear	24	18	7500
30	T-8	Med. Bipin	G30T8	7.60	Clear	24	36	7500
T-6 Approx. ¾" Diameter								
35(323)	T-6	Single Pin	G36T6	27.00	Clear	12	36	7500
65(323)	T-6	Single Pin	G64T6	29.00	Clear	24	64	7500

Fluorescent Lamp Footnotes

300. Nominal lamp length includes the proper allowance for standard lampholders.

301. Rated average life with ballasts which meet published specifications.

302. Approximate initial lumens after 100 hours operation.

303. For use with trigger start ballasts to provide reliable starting under high humidity conditions.

304. May also be operated on a.c. circuits. At 420 ma. lamp current (a.c.) nominal lamp watts are 13.

305. Previously listed as F15T8/G/6.

308. When base pins or RDC bases are horizontal, window opening is centered in a vertical plane through lamp axis.

311. The pins of these lamps are short circuited inside the end caps and lamp will not operate on pre-heat or rapid start circuits.

313. Nominal lamp watts are to the nearest 5 watts and are for 800 ma. operation except as shown.

316. Replacement lamp for existing fluorescent street lighting and other outdoor installations. For new installations the F72T12/HO lamp is recommended.

317. Nominal lamp watts are shown to the nearest 5 watts and are for 1500 ma. operation.

318. Economic life under typical operation conditions ranges between 5000 and 7500 hours.

319. Lumen ratings shown are for grooves sideways. With grooves up and down lumens and lamp watts are approximately 5% lower.

320. Nominal lamp watts and light output are a peak values and for 1500 ma. operation. Nominal watts are shown to the nearest 5 watts.

321. Nominal lamp watts are shown to the nearest 5 watts and are for 600 ma. operation.

322. Nominal width of mounting frame.

323. Nominal lamp watts are shown to the nearest 5 watts and are for 425 ma. operation.

327. Life indicated is useful ozone producing life: actual life may be much longer.

329. For most satisfactory operation on d.c., a polarity reversing switch should be installed.

336. Base face to outside of bend is 22½".

337. U-shaped lamp with 3 5/8" center to center leg spacing.

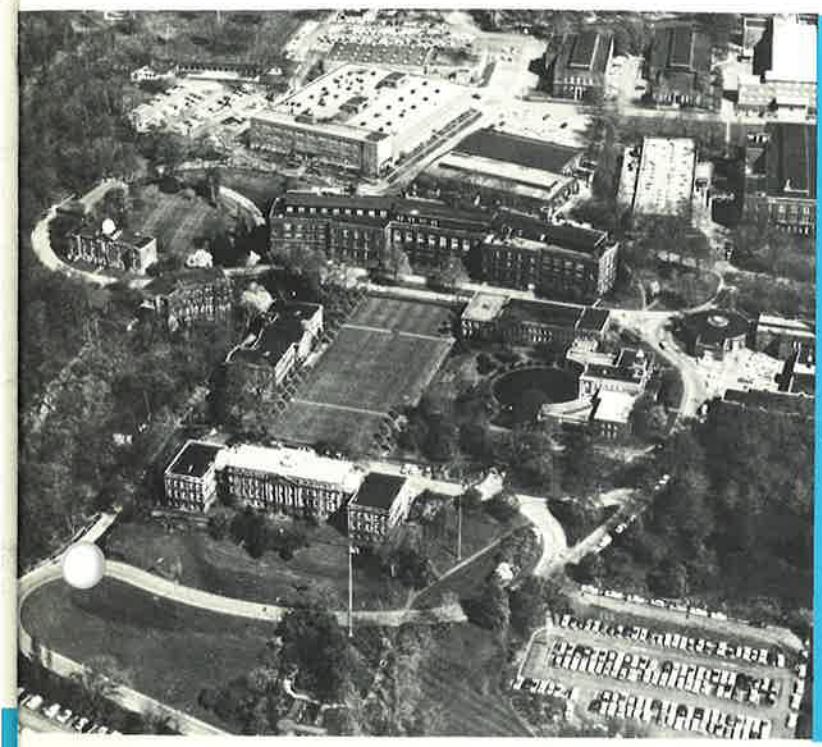
338. Made in West Germany.

343. Rated avg. life is 3000 hours at 45 minutes per start.

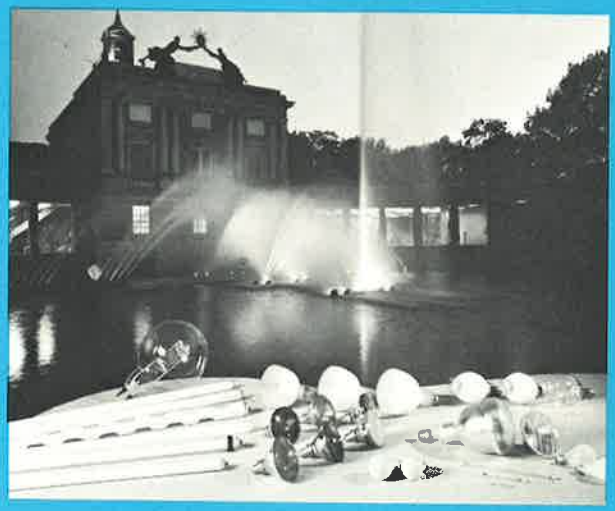
345. Nominal lamp watts shown are for 100ma operation.

346. Life ratings shown are for rapid start circuits only. On pre-heat circuits life is 10000 hours at 3 hours per start and 12000 hours at 12 hours per start.

YOU GET EXTRA VALUES
WITH GENERAL ELECTRIC LAMPS



Nela Park: Lighting Headquarters of the World



Lighting Institute: Courses in All Phases of Lighting

Largest Light Bulb: One of Thousands of Products