



**1983 General Electric  
Miniature, Subminiature, Sealed Beam  
& Halogen-Cycle Lamp Catalog**

520  
WEATHERLY  
INDEX

*Steve*  
*Spain*  
*Jones*

# SPECIALTY LAMPS

# General Electric Miniature, Subminiature and Sealed Beam Lamp Catalog

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## Introduction

General Electric sealed beam, miniature and subminiature lamps are designed for those applications requiring specific size, long life, and low cost. These lamps are available with a wide variety of filament constructions, bases, and wire terminal leads. Most are designed for operation on low-voltage power sources such as battery-generator systems, dry cell or storage batteries, or transformers.

Manufacturers and designers of equipment requiring lamps should select lamps of established design whenever possible for maximum economy as well as ease of replacement through regular trade channels.

Lamps in this catalog are grouped alphabetically, "B" to "T", by bulb size. The letter refers to the bulb shape, and the number is the approximate diameter in eighths of an inch. For example, T-2 means approximately  $\frac{2}{8}$  inch or  $\frac{1}{4}$ " diameter. The approximate diameter is also given in inches followed by the metric equivalent in parentheses. At the present time, the English units are the overriding dimensions. However, this will change as industry converts to metric. Lamps are listed in ascending order of design volts within the particular group.

General Electric offers application engineering assistance to all customers in applying lamps in product design. Contact your local GE Lamp Representative for additional information or assistance.

# General Information

Lamps in this catalog are grouped according to bulb sizes. Within each group, lamps are listed in ascending order of design voltage. Lamps are listed by type of service in the Table of Lamp Applications (page 48), and numerically in the Numerical Index of Lamps (pages 4-9). Footnotes can be found on pages 37-39.

The abbreviations used in this catalog include:

A—Amperes	Pf.—Prefocus
Bay.—Bayonet	Sc.—Screw
C.P.—Candlepower	S.C.—Single Contact
Cand.—Candelabra	Spec.—Special
D.C.—Double Contact	Term.—Terminals
Fig.—Flanged	V—Volts
Index—Indexing	W—Watts
Min.—Miniature	

Information given in the specifications columns on pages 11, 14, 20, and 33 covers the electrical and physical characteristics of General Electric miniature and subminiature lamps. This information includes:

## LINE NUMBER

The line number is used to find specific lamps and has no ordering or technical significance.

## LAMP NUMBER

Lamps are marked, in nearly all cases, with a General Electric Trade Number recorded with the American National Standards Institute. This number completely identifies the lamp and is sufficient identification for ordering purposes.

## PRIMARY APPLICATION

The primary application column lists the present major service of each lamp. However, lamps may be, and are, used in many other applications where their designs may prove advantageous. This column also lists any unique features of the lamp.

## DESIGN VOLTS

This column lists the voltage at which the lamp is designed for rated amperes, candlepower, and laboratory-life characteristics.

## DESIGN WATTS OR AMPS

The power consumption (watts) or current rating (amps) at the design voltage is listed in this column. In the case of dual-filament lamps, the values for each filament are given.

## APPROXIMATE MEAN SPHERICAL CANDLEPOWER

The value shown in this column is the initial mean spherical candlepower at the design voltage. It is subject to manufacturing tolerances. Mean spherical candlepower is the generally accepted method of rating the total light output of miniature lamps. To convert this rating to lumens, multiply it by 12.57 (4 pi).

## LIGHT CENTER LENGTH

Light center length indicates the location of the filament with reference to the lamp base. It is subject to manufacturing tolerances.

The light center length is measured from the geometric center of the light source to a particular point of the base. This point is shown below for the base types used.

- Screw—End of bottom base contact.
- Bayonet—Top of base pins.
- S.C. or D.C. Prefocus—Bottom of indentations on prefocusing collar.
- S.C. Miniature Flanged—Top of bosses in flange.
- D.C. Index—Top of base pin nearer bottom contacts.
- Wedge—Center of notch.
- Tab—Center of hole in tab.
- G-4 and Miniature Two-Pin—Bottom of pins.
- Bi-Pin—Bottom of base.
- Flanged—Top of flange.
- Midget Grooved—Center of groove.
- Wire Terminal—Not specified.

# General Information—Continued

## S.C. AND D.C. PREFOCUSED BASE LAMPS

The letter "A" following the base type designates that the distance from the bottom of the collar to the bottom of the base contact is 13/32". For "B" bases this distance is 9/16".

The few lamps identified by the letter "S" in the "Base" column are special in that the collar location and/or the orientation of the contacts differs from the above.

## MAXIMUM OVERALL LENGTH

The dimension which includes the bulb and base is designated as the overall length of the lamp. In the case of wire terminal lamps, this dimension applies only to the glass portion. The figures listed here are maximum tolerances.

## RATED AVERAGE LIFE

Rated average life is that obtained in closely controlled laboratory testing of lamps at their

design voltage. It is not necessarily the same as service life; shocks, vibration, voltage fluctuations, temperature, and other environmental influences may result in a shorter average life.

## FIGURE NUMBER

The figure number corresponds to the lamp drawing located in the back of this catalog (drawings begin on page 40). The drawing shows the correct bulb and base, but not the filament, for the lamp listed. For filament drawings, refer to Table of Contents.

## HEAVY DUTY LAMPS

There is a General Electric heavy duty lamp available for most automotive sockets. These lamps have been designed with heavier wire and lower filament temperatures in an attempt to provide longer life and more trouble-free performance. They should be considered where the lamps are likely to be subjected to extra shocks and vibration.

## Important Notice

This catalog contains accumulated data to June, 1983. Additional information is constantly being uncovered through research and testing, which may modify the data given herein. This is particularly true of newer lamps. For the latest lamp design data and information, contact your General Electric Lamp Representative.

The data and suggested applications contained in this catalog, as well as any additional information our representative may be able to furnish, are for general information only and are not intended and should not be taken as representations or warranties as to the suitability of a lamp for any particular application or use in any particular equipment, nor are our representatives authorized to make any such representations or give any such warranties. Applications and conditions of use are many and varied, and beyond our control. We cannot possibly have the same degree of knowledge that the purchaser has with respect to the design of his equipment and the conditions of its use. Therefore, it is up to the purchaser to make his own determination as to the suitability of a lamp for his intended application or use and to assume the responsibility for that determination.

General Electric desires to supply the best possible products at all times. For this reason, General Electric reserves the right to make changes in its products when it believes such changes will improve its products.

# Numerical Index—Miniature and Subminiature Lamps

Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps		
HR9000	PAR-18	G-6 Two Pin	6.0	7W	14	28
HR9001	PAR-18	G-6 Two Pin	6.0	12W	14	29
HR9002	PAR-18	G-6 Two Pin	12.0	12W	14	30
ML20/DF-28	T-8	Disk	28.0	20W	30	9
ML20/R-28	T-8	Disk	28.0	20W	30	8
PR2	B-3½	S.C. Miniature Flanged	2.38	.50A	20	2
PR3	B-3½	S.C. Miniature Flanged	3.57	.50A	20	6
PR4	B-3½	S.C. Miniature Flanged	2.33	.27A	20	1
PR6	B-3½	S.C. Miniature Flanged	2.47	.30A	20	3
PR7	B-3½	S.C. Miniature Flanged	3.7	.30A	20	7
PR9	B-3½	S.C. Miniature Flanged	2.7	.15A	20	4
PR12	B-3½	S.C. Miniature Flanged	5.95	.50A	20	11
PR13	B-3½	S.C. Miniature Flanged	4.75	.50A	20	9
PR15	B-3½	S.C. Miniature Flanged	4.82	.50A	20	10
PR18	B-3½	S.C. Miniature Flanged	7.2	.55A	20	12
PR20	B-3½	S.C. Miniature Flanged	8.63	.50A	20	13
PR30	B-3½	S.C. Miniature Flanged	3.75	.86A	20	8
P25-1	S-8	S.C. Bayonet	13.5	1.86A	23	11
P25-2	S-8	D.C. Index	13.5	1.86A	23	12
R19/5	G-6	S. C. Bayonet	13.5	.37A	21	20
R19/10	G-6	S. C. Bayonet	13.5	.74A	21	26
W10/3	T-3¼	Wedge	13.5	.22A	28	38
					11	28
6	S-8	D.C. Bayonet	6.4	3.0 A	22	24
6A1	T-2	Tel. Slide #1	6.0	.12-.16 A	26	1
6C1	T-2	Tel. Slide #1	6.0	.035-.045A	26	2
10	G-3½	Miniature Two Pin	2.5	.50A	20	26
10C5	T-2	Tel. Slide #5	10.0	.035-.045A	26	3
11	T-1¼	Wedge	2.5	.20A	24	34
					11	1
12	G-3½	Miniature Two Pin	6.3	.15A	20	29
12A1	T-2	Tel. Slide #1	12.0	.09-.11 A	26	4
13	G-3½	Miniature Screw	3.7	.30A	20	28
14	G-3½	Miniature Screw	2.47	.30A	20	25
15	G-4½	Miniature Two Pin	7.0	.40A	20	51
18	T-1¼	Wedge	14.0	.04A	25	17
					11	7
19	G-3½	Miniature Two Pin	14.4	.10A	20	33
24B1	T-2	Tel. Slide #1	24.0	.035-.045A	26	5
24D1	T-2	Tel. Slide #1	24.0	.09-.11 A	26	6
24EX	T-2	Tel. Slide #1	24.0	.032-.038A	26	10
24E1	T-2	Tel. Slide #1	24.0	.032-.038A	26	7
24E2	T-2	Tel. Slide #2	24.0	.032-.038A	26	8
24F5	T-2	Tel. Slide #5	24.0	.032-.038A	26	9
24X	T-2	Special #2	24.0	.032-.038A	26	11
27	G-4½	Miniature Screw	4.9	.30A	20	45
35A1	T-2	Tel. Slide #1	35.0	.035-.045A	26	13
35A2	T-2	Tel. Slide #2	35.0	.035-.045A	26	14
37	T-1¼	Wedge	14.0	.09A	25	24
					11	10
37E	T-1¼	Wire Terminal	14.0	.09A	11	11
					25	25
40	T-3¼	Miniature Screw	6.3	.15A	28	19
43	T-3¼	Miniature Bayonet	2.5	.50A	28	4
44	T-3¼	Miniature Bayonet	6.3	.25A	28	25
47	T-3¼	Miniature Bayonet	6.3	.15A	28	20
48C1	T-2	Tel. Slide #1	48.0	.032-.038A	26	15
48C2	T-2	Tel. Slide #2	48.0	.032-.038A	26	16
48D1	T-2	Tel. Slide #1	48.0	.017-.025A	26	17
48D2	T-2	Tel. Slide #2	48.0	.017-.025A	26	18
49	T-3¼	Miniature Bayonet	2.0	.06A	28	2
51	G-3½	Miniature Bayonet	7.5	.22A	20	31
53	G-3½	Miniature Bayonet	14.4	.12A	20	34
53X	G-3½	Miniature Bayonet	14.4	.12A	20	35
55	G-4½	Miniature Bayonet	7.0	.41A	20	52
55B1	T-2	Tel. Slide #1	55.0	.09-.11 A	26	19
55C1	T-2	Tel. Slide #1	55.0	.045-.06 A	26	20
55C2	T-2	Tel. Slide #2	55.0	.045-.06 A	26	21
56X	T-1¼	Wedge	5.0	.115A	25	1
					11	3
57	G-4½	Miniature Bayonet	14.0	.24A	21	1
57X	G-4½	Miniature Bayonet	14.0	.24A	21	2
60A1	T-2	Tel. Slide #1	60.0	.045-.055A	26	22
63	G-6	S. C. Bayonet	7.0	.63A	21	16
64	G-6	D. C. Bayonet	7.0	.63A	21	17

Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps		
67	G-6	S. C. Bayonet	13.5	.59A	21	21
68	G-6	D. C. Bayonet	13.5	.59A	21	22
70	T-1¼	Wedge	14.0	.15A	25	28
					11	13
73	T-1¼	Wedge	14.0	.08A	25	22
					11	8
73E	T-1¼	Wire Terminal	14.0	.08A	25	23
					11	9
74	T-1¼	Wedge	14.0	.10A	25	27
					11	12
75X	T-1¼	Wedge	2.5	.35A	11	2
					25	46
79	T-1¼	Wedge	6.0	.20A	25	5
					11	4
81	G-6	S. C. Bayonet	6.5	1.02A	21	14
82	G-6	D. C. Bayonet	6.5	1.02A	21	15
84	T-1¼	Wedge	6.3	.04A	25	7
					11	5
85	T-1¼	Wedge	28.0	.04A	25	43
					11	14
85E	T-1¼	Wire Terminal	28.0	.04A	25	44
					11	15
86	T-1¼	Wedge	6.3	.20A	25	12
					11	6
88	S-8	D.C. Bayonet	6.8	1.91A	22	32
89	G-6	S. C. Bayonet	13.0	.58A	21	18
90	G-6	D. C. Bayonet	13.0	.58A	21	19
93	S-8	S.C. Bayonet	12.8	1.04A	22	33
94	S-8	D.C. Bayonet	12.8	1.04A	22	34
97	G-6	S. C. Bayonet	13.5	.69A	21	24
97A	G-6	S. C. Bayonet	13.5	.69A	21	25
105	B-6	S.C. Bayonet	12.8	1.07A	20	19
112	TL-3	Miniature Screw	1.2	.22A	27	26
116	G-4½	Miniature Screw	2.65	.41A	20	43
124E-1	T-3¼	Wire Terminal	14.0	.27A	28	47
					11	35
127	T-3¼	Wedge	2.47	.275A	11	16
					28	3
131	G-3½	Miniature Screw	1.3	.10A	20	22
147	T-3¼	Wedge	7.0	.43A	11	24
					28	28
157	G-6	Miniature Screw	5.8	1.10A	21	13
158	T-3¼	Wedge	14.0	.24A	28	46
					11	31
159	T-3¼	Wedge	6.3	.15A	11	20
					28	17
161	T-3¼	Wedge	14.0	.19A	11	30
					28	42
166	T-3¼	Wedge	14.0	.35A	11	38
					29	1
192	T-3¼	Wedge	13.0	.33A	11	27
					28	37
194	T-3¼	Wedge	14.0	.27A	28	48
					11	32
194A	T-3¼	Wedge	14.0	.27A	28	50
					11	37
194E	T-3¼	Wire Terminal	14.0	.27A	28	51
					11	33
194E-1	T-3¼	Wire Terminal	14.0	.27A	28	52
					11	34
194NA	T-3¼	Wedge	14.0	.27A	28	49
					11	36
198	S-8	D.C. Index	12.8	2.25A	23	9
			14.0	.59A	23	9
199	S-8	S.C. Bayonet	12.8	2.25A	23	10
209	B-6	S. C. Bayonet	6.5	1.78A	20	15
210	B-6	D.C. Bayonet	6.5	1.78A	20	16
211-2	T-3	Miniature Cap	12.8	.97A	27	13
212-2	T-3	Miniature Cap	13.5	.74A	27	18
214-2	T-3	Miniature Cap	13.5	.52A	27	17
222	TL-3	Miniature Screw	2.25	.25A	27	27
222X	TL-3	Miniature Screw	2.25	.25A	27	28
227E	T-3¼	Wire Terminal	5.67	.15A	28	10
					11	18
238	T-3¼	Miniature Bayonet	6.3	.50A	28	27

# Numerical Index—Miniature and Subminiature Lamps

Lamp No.	Bulb	Base	Design		Page No.	Line No.	Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps						Volts	Watts or Amps		
243	TL-3	Miniature Screw	2.33	.27A	27	30	447	T-3¼	Wedge	6.3	.15A	11	21
245	G-3½	Miniature Screw	2.46	.50A	20	24						28	21
251	T-1¼	S.C. Midget Flanged	2.47	.30A	24	33	455	G-4½	Miniature Bayonet	6.5	.50A	20	50
252	TL-1½	S.C. Midget Flanged	2.5	.35A	24	26		FLASHER				30	13
253	TL-1½	Midget Grooved	2.5	.35A	24	27	456	G-4½	Miniature Bayonet	28.0	.17A	21	8
253X	TL-1½	Midget Grooved	2.5	.35A	24	28	458	G-3½	Miniature Screw	1.5	.20A	20	23
257	G-4½	Miniature Bayonet	14.0	.27A	21	4	464	T-3¼	Wedge	28.0	.17A	11	43
	FLASHER				30	14						29	17
258	FLASHER	Miniature Screw	14.0	.27A	30	15	500	T-4½	Miniature Screw	9.84	.50A	29	30
	G-4½				21	3	502	G-4½	Miniature Screw	5.1	.15A	20	47
259	T-3¼	Wedge	6.3	.25A	11	22	503	G-4½	Miniature Bayonet	5.1	.15A	20	48
					28	23	509K	G-6	Candelabra Screw	24.0	.18A	21	28
261	TL-1½	Midget Grooved	2.5	.35A	24	29	555	T-3¼	Wedge	6.3	.25A	11	23
265	G-3½	Miniature Bayonet	28.0	.08A	20	40						28	24
267	T-3¼	Miniature Bayonet	6.3	.15A	28	16	558	T-3¼	Wedge	13.0	.33A	11	26
	FLASHER				30	12						28	36
268	T-1¼	S.C. Midget Flanged	2.5	.35A	24	35	561	T-3	Rigid Loop	12.8	.97A	27	14
280	T-3¼	Wedge	10.0	.13A	11	25	562	T-3	Rigid Loop	13.5	.74A	27	19
					28	30	563	T-3	Rigid Loop	13.5	.52A	27	16
285	T-3¼	Wedge	5.0	.09A	28	7	583D	T-1¼	Wire Terminal	5.0	.06A	24	22
					11	17	585	T-3¼	Wedge	28.0	.04A	11	39
					21	7						29	7
293	G-4½	Miniature Bayonet	14.0	.33A	21	7	605	G-4½	Miniature Screw	6.15	.50A	20	49
301	G-5	S.C. Bayonet	28.0	.17A	21	11	612	G-3½	Miniature Two Pin	6.3	.25A	20	30
302	G-5	D.C. Bayonet	28.0	.17A	21	12	623	G-6	S.C. Bayonet	28.0	.37A	21	33
303	G-6	S.C. Bayonet	28.0	.30A	21	31	624	G-6	D.C. Bayonet	28.0	.37A	21	34
304	G-6	D.C. Bayonet	28.0	.30A	21	32	631	G-6	S.C. Bayonet	14.0	.63A	21	27
305	S-8	S.C. Bayonet	28.0	.51A	23	14	656	T-3¼	Wedge	28.0	.06A	11	40
305IF	S-8	S.C. Bayonet	28.0	.51A	23	15						29	8
306	S-8	D.C. Bayonet	28.0	.51A	23	16	657	T-3¼	Wedge	28.0	.08A	29	12
307	S-8	S.C. Bayonet	28.0	.67A	23	25						11	41
307IF	S-8	S.C. Bayonet	28.0	.67A	23	26	658	T-3¼	Wedge	14.0	.08A	11	29
307R	S-8	S.C. Bayonet	28.0	.67A	23	27						28	40
307SB	S-8	S.C. Bayonet	28.0	.67A	23	28	673	T-1¼	Special	4.5	.29A	24	21
308	S-8	D.C. Bayonet	28.0	.67A	23	29	680	T-1	Wire Terminal	5.0	.06A	24	12
308IF	S-8	D.C. Bayonet	28.0	.67A	23	30	683	T-1	Wire Terminal	5.0	.06A	24	13
309	S-11	S.C. Bayonet	28.0	.9A	24	6	683AS15	T-1	Wire Terminal	5.0	.06A	24	14
309IF	S-11	S.C. Bayonet	28.0	.9A	24	7	685	T-1	Sub-Midget Flanged	5.0	.06A	24	15
310	S-11	D.C. Bayonet	28.0	.9A	24	8	705	S-8	S.C. Bayonet	28.0	.51A	23	17
311	S-11	S.C. Bayonet	28.0	1.29A	24	9	715	T-1	Wire Terminal	5.0	.115A	24	16
311R	S-11	S.C. Bayonet	28.0	1.29A	24	10	718	T-1	Sub-Midget Flanged	5.0	.115A	24	17
313	T-3¼	Miniature Bayonet	28.0	.17A	29	15	718AS15	T-1	Sub-Midget Flanged	5.0	.115A	24	18
315	S-8	S.C. Bayonet	28.0	.90A	23	36	755	T-3¼	Miniature Bayonet	6.3	.15A	28	14
316	T-3¼	Miniature Bayonet	6.0	.70A	28	12	756	T-3¼	Miniature Bayonet	14.0	.08A	28	39
323	T-1¼	Special	3.0	.19A	24	20	757	T-3¼	Miniature Bayonet	28.0	.08A	29	10
325	T-1¼	Special	3.0	.19A	24	19	767	T-2¼	Miniature Bayonet	6.0	12W	14	10
327	T-1¼	S.C. Midget Flanged	28.0	.04A	25	32						26	26
327AS-15	T-1¼	S.C. Midget Flanged	28.0	.04A	25	33	773	T-2¼	G-4 Two Pin	12.0	8W	14	19
327R	T-1¼	S.C. Midget Flanged	28.0	.04A	25	34						26	33
328AS-10	T-1¼	S.C. Midget Flanged	6.0	.20A	25	4	774	T-2¼	G-4 Two Pin	12.0	8W	14	13
328	T-1¼	S.C. Midget Flanged	6.0	.20A	25	3						26	29
330	T-1¼	S.C. Midget Flanged	14.0	.08A	25	18	778	T-2¼	G-4 Two Pin	6.0	20W	14	17
334	T-1¼	Midget Grooved	28.0	.04A	25	35						26	31
335	T-1¼	Midget Screw	28.0	.04A	25	38	782	T-2¼	G-4 Two Pin	12.0	20W	14	21
336	T-1¼	Midget Grooved	14.0	.08A	25	19						26	35
344	T-1¼	S.C. Midget Flanged	10.0	.014A	26	14	783	T-2¼	G-4 Two Pin	12.0	12W	14	14
345	T-1¼	S.C. Midget Flanged	6.0	.04A	25	2	784	T-2¼	G-4 Two Pin	6.0	6W	14	7
352X	G-3½	Miniature Screw	3.0	.07A	20	27						26	23
356	G-3½	Miniature Bayonet	28.0	.17A	20	41	785	T-2¼	G-4 Two Pin	6.0	8W	14	8
370	T-1¼	S.C. Midget Flanged	18.0	.04A	25	29						26	24
378	T-1¼	Midget Screw	6.3	.20A	25	10	786	T-2¼	G-4 Two Pin	6.0	12W	14	11
381	T-1¼	S.C. Midget Flanged	6.3	.20A	25	11						26	27
382	T-1¼	S.C. Midget Flanged	14.0	.08A	25	21	787	T-2¼	G-4 Two Pin	6.0	10W	14	9
385	T-1¼	S.C. Midget Flanged	28.0	.04A	25	45						26	25
386	T-1¼	Midget Grooved	14.0	.08A	25	20	788	T-2¼	G-4 Two Pin	6.0	3.33A	26	28
387	T-1¼	S.C. Midget Flanged	28.0	.04A	25	40						14	12
388	T-1¼	Midget Grooved	28.0	.04A	25	41	789	T-2¼	G-4 Two Pin	12.0	14W	14	20
394	T-1¼	S.C. Midget Flanged	12.0	.04A	25	16						26	34
395X	B-3½	S.C. Miniature Flanged	3.0	.07A	20	5	790	T-2¼	G-4 Two Pin	14.0	25W	14	22
400	T-3¼	Wedge	28.0	.10A	29	14						26	36
					11	42	791	T-2¼	G-4 Two Pin	14.0	35W	14	23
406	G-4½	Miniature Screw	2.6	.30A	20	42						26	37
	FLASHER				30	10	792	T-2¼	G-4 Two Pin	14.0	50W	14	24
407	G-4½	Miniature Screw	4.9	.30A	20	44						26	38
	FLASHER				30	11						26	
425	G-4½	Miniature Screw	5.0	.50A	20	46							

# Numerical Index—Miniature and Subminiature Lamps

Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps		
794	T-2½	G-4 Two Pin	10.5	15.7W	14	18
					26	32
820	T-3¼	Wedge	6.0	.14A	11	19
					28	11
880	T-3¼	Axial Plastic Prefocus	12.8	2.1A	28	33
				27W	15	15
					14	26
881	T-3¼	Right Angle Plastic Prefocus	12.8	2.1A	28	34
				27W	15	16
					14	27
904	T-5	Wedge	13.5	.69A	11	54
					30	3
906	T-5	Wedge	13.0	.69A	11	53
					30	2
908	T-5	Wedge	6.0	1.5A	11	48
					29	44
909	T-5	Wedge	6.0	.62A	11	46
					29	42
912	T-5	Wedge	12.8	1.0A	11	50
					29	48
914	T-5	Wedge	4.0	.90A	11	44
					29	40
915	T-5	Wedge	12.0	.75A	11	49
					29	46
917	T-5	Wedge	12.8	1.2A	11	51
					29	47
921	T-5	Wedge	12.8	1.4A	11	52
					30	1
926	T-5	Wedge	4.0	1.8A	11	45
					29	41
927	T-5	Wedge	6.0	1.2A	11	47
					29	43
947	T-3¼	Miniature Bayonet	9.84	.50A	28	29
957	T-4½	Miniature Bayonet	9.84	.50A	29	31
1003	B-6	S.C. Bayonet	12.8	.94A	20	17
1004	B-6	D.C. Bayonet	12.8	.94A	20	18
1034	S-8	D.C. Index	12.8	1.80A	22	40
			14.0	.59A		
1047	RP-11	S.C. Bayonet	26.0	2.70A	22	8
1062	RP-11	D.C. Bayonet	40.0	.92A	22	9
1073	S-8	S.C. Bayonet	12.8	1.80A	22	41
1076	S-8	D.C. Bayonet	12.8	1.80A	22	42
1096	S-8	D.C. Pf. (S)	6.0	4.5A	22	18
1129	S-8	S.C. Bayonet	6.4	2.63A	22	22
1133	RP-11	S.C. Bayonet	6.2	3.91A	22	5
1141	S-8	S.C. Bayonet	12.8	1.44A	22	37
1142	S-8	D.C. Bayonet	12.8	1.44A	22	38
1152	S-8	D.C. Bayonet	12.8	1.34A	22	35
1154	S-8	D.C. Index	6.4	2.63A	22	23
			7.0	.75A		
1155	G-6	S.C. Bayonet	13.5	.59A	21	23
1156	S-8	S.C. Bayonet	12.8	2.10A	23	8
1157	S-8	D.C. Index	12.8	2.10A	23	4
			14.0	.59A		
1157A	S-8	D.C. Index	12.8	2.10A	23	5
			14.0	.59A		
1157NA	S-8	D.C. Index	12.8	2.10A	23	6
			14.0	.59A		
1176	S-8	D.C. Bayonet	12.8	1.34A	22	36
			14.0	.59A		
1195	RP-11	S.C. Bayonet	12.5	3.00A	22	6
1196	RP-11	D.C. Bayonet	12.5	3.00A	22	7
1203	S-8	S.C. Bayonet	28.0	.71A	23	31
1209	RP-11	S.C. Pf. (B)	6.1	4.1A	22	4
1224	G-6	D.C. Bayonet	34	.16A	21	35
1229	S-8	D.C. Bayonet	40.0	.38A	23	41
1240	G-6½	D.C. Pf. (A)	32.0	3.6A	21	36
1251	G-6	S.C. Bayonet	28.0	.23A	21	29
1252	G-6	D.C. Bayonet	28.0	.23A	21	30
1302	T-3¼	Miniature Bayonet	6.3	.15A	28	13
1308	B-6	S.C. Bayonet	28.0	.56A	20	21
1309	B-6	S.C. Bayonet	28.0	.52A	20	20
1315	G-5	S.C. Bayonet	2.5	1.0A	21	9
1317	B-6	S.C. Bayonet	6.0	.51A	20	14
1383	R-12	S.C. Bayonet	13.0	20W	21	38

Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps		
1384	R-12	S.C. Bayonet	6.0	20W	21	37
1385	R-12	S.C. Bayonet	28.0	20W	21	40
1388	R-12	D.C. Bayonet	24.0	20W	21	39
1392	T-3	Two Pin on Reflector	6.0	20.4W	14	33
					27	3
1408	T-3¼	Miniature Bayonet	10.0	.13A	28	31
1414	T-4½	Miniature Bayonet	12.0	.46A	29	33
1416	T-4½	Miniature Bayonet	12.8	.80A	29	32
1424	S-6	S.C. Bayonet	3.7	2.75A	22	10
1434	T-5	S.C. Bayonet	3.7	2.75A	29	38
1440	S-6	D.C. Index	4.0	1.0A	22	11
1445	G-3½	Miniature Bayonet	18.0	.15A	20	38
			14.4	.135A	20	36
1447	G-3½	Miniature Screw	18.0	.15A	20	37
1449	G-3½	Miniature Screw	14.0	.20A	20	32
1450	G-3½	Miniature Bayonet	24.0	.035A	20	39
1460	S-8	D.C. Pf. (A)	6.5	2.75A	22	25
1460X	S-8	D.C. Pf. (A)	6.5	2.75A	22	26
1464	G-5	Miniature Bayonet	22.0	.25A	21	10
1468	S-8	D.C. Pf. (S)	6.0	4.5A	22	19
1468X	S-8	D.C. Pf. (S)	6.0	4.5A	22	20
1487	T-3¼	Miniature Screw	14.0	.20A	28	43
1489	T-5	S.C. Bayonet	6.5	2.75A	29	45
1490	T-3¼	Miniature Bayonet	3.2	.16A	28	5
1493	S-8	D.C. Bayonet	6.5	2.75A	22	27
1495	T-4½	Miniature Bayonet	28.0	.30A	29	34
1495X	T-4½	Miniature Bayonet	28.0	.30A	29	35
1503	RP-11	S.C. Pf. (B)	5.9	6.53A	22	3
1534	S-6	D.C. Index	5.0	.55A	22	12
			28.0	.34A		
1561	S-11	S.C. Pf. (B)	6.3	4.0A	24	3
1563	S-8	S.C. Bayonet	28.0	.76A	23	33
1565	S-8	S.C. Pf. (S)	5.1	1.75A	22	14
1580X	S-8	S.C. Bayonet	28.0	.93A	23	37
1591	S-8	S.C. Bayonet	28.0	.61A	23	18
1591IF	S-8	S.C. Bayonet	28.0	.61A	23	19
1594	S-8	D.C. Bayonet	6.0	5.0A	22	21
1612	S-8	D.C. Bayonet	5.4	1.90A	22	15
1619	S-8	S.C. Bayonet	6.7	1.90A	22	31
1630	S-8	D.C. Pf. (A)	6.5	2.75A	22	28
1631X	S-8	D.C. Pf. (A)	6.5	2.75A	22	29
1634	S-8	D.C. Pf. (A)	20.0	1.0A	23	13
1638	S-8	D.C. Bayonet	28.0	1.02A	23	40
1649	S-8	D.C. Pf. (A)	6.5	2.75A	22	30
1651	S-8	S.C. Bayonet	5.0	.60A	22	13
1662	S-8	D.C. Index	28.0	.93A	23	38
			28.0	.34A		
1665	S-8	S.C. Bayonet	28.0	.80A	23	34
1665IF	S-8	S.C. Bayonet	28.0	.80A	23	35
1680	S-8	S.C. Bayonet	6.0	4.10A	22	16
1680X	S-8	S.C. Bayonet	6.0	4.10A	22	17
1683	S-8	S.C. Bayonet	28.0	1.02A	23	39
1691	S-8	S.C. Bayonet	28.0	.61A	23	20
1691IF	S-8	S.C. Bayonet	28.0	.61A	23	21
1692	S-8	D.C. Bayonet	28.0	.61A	23	22
1726X	S-11	D.C. Bayonet	12.5	3.0A	24	5
1731	S-11	S.C. Pf. (B)	6.3	6.6A	24	4
1759	S-11	S.C. Pf. (B)	6.1	4.1A	24	1
1762D	T-1¾	Wire Terminal	28.0	.04A	25	30
1763	S-11	S.C. Pf. (B)	6.1	4.1A	24	2
1764D	T-1¾	Wire Terminal	28.0	.04A	25	31
1777	S-8	S.C. Bayonet	12.8	1.52A	22	39
1810	T-3¼	Miniature Bayonet	6.3	.40A	28	26
1813	T-3¼	Miniature Bayonet	14.4	.10A	29	2
1815	T-3¼	Miniature Bayonet	14.0	.20A	28	44
1816	T-3¼	Miniature Bayonet	13.0	.33A	28	35
1818	T-3¼	Miniature Bayonet	24.0	.17A	29	4
1819	T-3¼	Miniature Bayonet	28.0	.04A	29	6
1820	T-3¼	Miniature Bayonet	28.0	.10A	29	13
1822	T-3¼	Miniature Bayonet	36.0	.10A	29	19
1828	T-3¼	Miniature Bayonet	37.5	.05A	29	20
1829	T-3¼	Miniature Bayonet	28.0	.07A	29	9
1835	T-3¼	Miniature Bayonet	55.0	.05A	29	21
1843	T-3¼	Miniature Bayonet	28.0	.022A	29	5
1846	T-3¼	Miniature Screw	8	.033A	28	1

# Numerical Index—Miniature and Subminiature Lamps

Lamp No.	Bulb	Base	Design		Page No.	Line No.	Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps						Volts	Watts or Amps		
1847	T-3¼	Miniature Bayonet	6.3	.15A	28	18	1987	T-4	D.C. Bayonet	28.0	150W	29	26
1850	T-3¼	Miniature Bayonet	5.0	.09A	28	8						15	21
1850W	T-3¼	Miniature Bayonet	5.0	.09A	28	9	1988	T-3	Special. Wire Leads	10.0	100W	27	11
1864	T-3¼	Miniature Bayonet	28.0	.17A	29	16						15	6
1866	T-3¼	Miniature Bayonet	6.3	.25A	28	22	2057	S-8	D.C. Index	12.8	2.1A	23	1
1869D	T-1¼	Wire Terminal	10.0	.14A	25	13				14.0	.48A		
1873	T-3¼	Miniature Bayonet	28.0	.20A	29	18	2057NA	S-8	D.C. Index	12.8	2.1A	23	2
1874	T-5	S. C. Bayonet	3.7	2.75A	29	39				14.0	.48A		
1876	T-5	S. C. Bayonet	3.5	2.50A	29	36	2058U	S-8	Wire Terminal	12.8	2.10A	23	3
1876X	T-5	S. C. Bayonet	3.5	2.50A	29	37				14.0	.48A		
1886	T-4½	Miniature Bayonet	6.3	.90A	29	29	2112D	T-1¼	Wire Terminal	6.3	.20A	25	8
1889	T-3¼	Miniature Bayonet	14.0	.27A	28	53	2121D	TL-3	Wire Terminal	2.25	.25A	27	29
1891	T-3¼	Miniature Bayonet	14.0	.24A	28	45	2124D	TL-1½	Wire Terminal	2.5	.35A	24	25
1892	T-3¼	Miniature Bayonet	14.4	.12A	29	3	2137D	T-2	Wire Terminal	28.0	.035-.045A	26	12
1893	T-3¼	Miniature Bayonet	14.0	.33A	28	54	2157D	T-3¼	Wire Terminal	6.3	.15A	28	15
1895	G-4½	Miniature Bayonet	14.0	.27A	21	5	2158D	T-1¼	Wire Terminal	3.0	.017A	24	37
1895R	G-4½	Miniature Bayonet	14.0	.27A	21	6	2159D	T-3¼	Wire Terminal	14.0	.08A	28	41
1906	T-3¼	Miniature Bayonet	5.0	.07A	28	6	2162D	T-1¼	Wire Terminal	14.0	.10A	25	26
1939X	T-7	S. C. Bayonet	28.0	50W	30	7	2169D	T-1¼	Wire Terminal	2.5	.35A	24	36
1940	T-7	S. C. Bayonet	14.0	50W	30	4	2174D	T-1¼	Wire Terminal	12.0	.04A	25	15
1944	T-7	S. C. Bayonet	14.0	3.57A	30	5	2180D	T-1¼	Wire Terminal	6.3	.04A	25	6
1944X	T-7	S. C. Bayonet	14.0	3.57A	30	6	2181D	T-1¼	Wire Terminal	6.3	.20A	25	9
1945	T-4	Two Pin	32.0	200W	29	28	2187D	T-1¼	Wire Terminal	28.0	.04A	25	39
					15	23	2188U	T-3¼	Wire Terminal	28.0	.08A	29	11
1958	T-4	Tab	28.0	150W	29	24	2232	S-8	S.C. Bayonet	28.0	.643A	23	23
					15	19	2232SB	S-8	S.C. Bayonet	28.0	.643A	23	24
1959	T-4	Tab	28.0	150W	29	25	2233	S-8	S.C. Bayonet	28.0	.766A	23	32
					15	20	2242	S-8	Wire Terminal	12.8	2.10A	23	7
1960	T-4	Tab	11.0	60W	29	23				14.0	.59A		
					15	18	233i	RP-11	D.C. Pf. (S)	5.9	4.66A	22	9
1962	T-3	Wire Terminal	8.5	7.3A	14	35				6.2	4.49A		
					27	5	2338	RP-11	D.C. Pf. (S)	5.9	4.66A	22	2
1962B	T-3	Wire Terminal	8.5	7.3A	15	1				6.2	4.49A		
					27	6	2600	T-1½	Wire Terminal	3.5	.72A	24	23
1962DX	T-3	Wire Terminal	8.5	7.3A	15	3						14	1
					27	8	2601	TL-1½	Wire Terminal	3.5	2.5W	14	2
1962DZ	T-3	Wire Terminal	8.5	7.3A	27	7						24	31
					15	2	2604X	TL-2¼	G-4 Two Pin	5.0	10W	14	15
1962TX	T-3	Wire Terminal	8.5	7.3A	27	9						26	39
					15	4	2605	TL-2¼	G-4 Two Pin	6.0	10W	14	16
1964	T-3	Special Sleeve	28.0	150W	27	23						26	40
					15	13	2700	T-1½	S.C. Midget Flanged	3.5	.72A	24	24
1967	T-3	Special Sleeve	28.0	150W	27	22						14	3
					15	14	2701	TL-1½	S.C. Midget Flanged	3.5	2.5W	14	4
1968	T-3	Double Slide	28.0	25W	27	21						24	32
					15	9	3011	S-11	S.C. Bayonet	28.0	1.29A	24	11
1970	T-3	Special Sleeve	28.0	100W	27	24	3026	T-2	Wire Terminal	6.3	13.2W	14	6
					15	11	3027	T-2	G-4	6.3	13.2W	14	5
1970X	T-3	Special Sleeve	28.0	100W	27	25	5004CW	T-5	Miniature Pinless	a.c.	4W	30	16
					15	12	5004WW	T-5	Miniature Pinless	a.c.	4W	30	17
1974	T-3	Wire Terminal	6.0	20W	14	31	5008CW	T-5	Miniature Pinless	a.c.	8W	30	20
					27	1	5008R	T-5	Miniature Pinless	a.c.	8W	30	21
1974D	T-3	Wire Terminal	6.0	20W	27	2	5008WW	T-5	Miniature Pinless	a.c.	8W	30	22
					14	32	5013CW	T-5	Miniature Pinless	a.c.	13W	30	24
1975	T-3	Double Slide	12.8	25W	27	12	5013R	T-5	Miniature Pinless	a.c.	13W	30	25
					15	7	5013WW	T-5	Miniature Pinless	a.c.	13W	30	26
1976	T-3	Double Slide	13.0	75W	15	8	5104WW	T-5	Miniature Bi-Pin	a.c.	4W	30	18
					27	15	5106WW	T-5	Miniature Bi-Pin	a.c.	6W	30	19
1977	T-3	Double Slide	8.5	7.3A	27	4	5108WW	T-5	Miniature Bi-Pin	a.c.	8W	30	23
					14	34	5113WW	T-5	Miniature Bi-Pin	a.c.	13W	30	27
1978X	T-3	Special	10.0	100W	27	10	7327	T-1¼	Bi-Pin M-23	28.0	.04A	25	36
					15	5	7378	T-1¼	Bi-Pin M-23	28.0	.04A	25	37
1982	T-3	S.C. Bayonet	28.0	75W	15	10	7387	T-1¼	Bi-Pin M-23	28.0	.04A	25	42
					27	20	7695	T-3¼	S.C. Bayonet	12.8	50W	28	32
1983	T-4	Wire Terminal	10.0	10A	29	22						14	25
					15	17	8261	TL-1½	Bi-Pin M-23	2.5	.35A	24	30
1986	T-4	Wire Terminal	28.0	250W	29	27							
					15	22							

# Numerical Index—Sealed Beam Lamps

Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps		
4000	PAR 46	3 Contact Lugs	12.8/12.8	37.5W/60W	35	50
4001	PAR 46	2 Contact Lugs	12.8	37.5W	36	3
H4001	PAR 46	2 Contact Lugs	12.8	37.5W	36	2
4013	PAR 46	Screw Terminals	6.4	25W	35	30
4014	PAR 36	Screw Terminals	6.4	18W	33	33
4019	PAR 46	Screw Terminals	6.2	30W	35	29
4020	PAR 46	3 Contact Lugs	6.4/6.4	30W/30W	35	32
4031	PAR 46	3 Contact Lugs	6.4/6.4	45W/45W	35	33
4040	PAR 46	3 Contact Lugs	12.8/12.8	37.5W/60W	36	1
4042	PAR 36	Screw Terminals	6.4	12W	33	32
4044	PAR 36	Screw Terminals	12.0	12W	34	2
4044-1	PAR 36	Slip-on Terminals	12.0	12W	34	3
4078	PAR 46	2 Contact Lugs	6.4	50W	35	34
4308	PAR 36	3 Screw Terminals	6.4/6.4	25W/12W	33	40
4313	PAR 36	Screw Terminals	13.0	250W	35	9
4340	PAR 36	Screw Terminals	48.0	80W	35	27
4346	PAR 36	Screw Terminals	5.3	0.5A	33	17
4350	PAR 36	Screw Terminals	36.0	60W	35	26
4405	PAR 36	Screw Terminals	12.8	30W	34	11
4405-1	PAR 36	Slip-on Terminals	12.8	30W	34	12
4406	PAR 36	Screw Terminals	12.8	35W	34	18
4406-1	PAR 36	Slip-on Terminals	12.8	35W	34	19
4409X	PAR 36	Screw Terminals	12.8	35W	34	20
4410	PAR 36	Screw Terminals	12.8	35W	34	21
4411	PAR 36	Screw Terminals	12.8	35W	34	22
4411-1	PAR 36	Slip-on Terminals	12.8	35W	34	23
4412	PAR 46	Screw Terminals	12.8	35W	35	39
4412-1	PAR 46	Slip-on Terminals	12.8	35W	35	40
4412A	PAR 46	Screw Terminals	12.8	35W	35	41
4412A-1	PAR 46	Slip-on Terminals	12.8	35W	35	42
4413	PAR 46	Screw Terminals	12.8	35W	35	43
4413R	PAR 46	Screw Terminals	12.8	35W	35	44
4414	PAR 36	Screw Terminals	12.8	18W	34	4
4414-1	PAR 36	Slip-on Terminals	12.8	18W	34	5
4414A	PAR 36	Screw Terminals	12.8	18W	34	6
4414R	PAR 36	Screw Terminals	12.8	18W	34	7
4415	PAR 36	Screw Terminals	12.8	35W	34	27
4415A	PAR 36	Screw Terminals	12.8	35W	34	28
4416	PAR 36	Screw Terminals	12.8	30W	34	13
4416-1	PAR 36	Slip-on Terminals	12.8	30W	34	14
4416A	PAR 36	Screw Terminals	12.8	30W	34	15
4416B	PAR 36	Screw Terminals	12.8	30W	34	16
4416R	PAR 36	Screw Terminals	12.8	30W	34	17
4419	PAR 46	Screw Terminals	12.8	35W	35	45
4420	PAR 46	3 Contact Lugs	12.8/12.8	30W/30W	35	38
4421	PAR 46	Slip-on Terminals	13.0	100W	36	16
4422	PAR 36	Screw Terminals	12.8	35W	34	24
4425R	PAR 36	3 Screw Terminals	12.8/12.8	50W/18W	34	44
4427	PAR 46	Screw Terminals	12.8	35W	35	46
4431	PAR 46	3 Contact Lugs	12.8/12.8	45W/35W	36	8
4433A	PAR 56	3 Contact Lugs	14.0/14.0	40W/40W	37	2
4433R	PAR 56	3 Contact Lugs	14.0/14.0	40W/40W	37	3
4434A	PAR 46	Screw Terminals	12.8	40W	36	6
4435	PAR 46	Screw Terminals	12.8	30W	35	37
4436	PAR 46	Screw Terminals	12.8	35W	35	47
4436R	PAR 46	Screw Terminals	12.8	35W	35	48
4439X	PAR 46	2 Contact Lugs	12.8	18W	35	36
4440X	PAR 36	3 Contact Lugs	12.8/12.8	40W/40W	34	36
4440X-1	PAR 36	3 Slip-on Terminals	12.8/12.8	40W/40W	34	37
4446	PAR 36	Screw Terminals	12.8	25W	34	9
4459	PAR 46	3 Slip-on Terminals	12.8/12.8	40W/40W	36	7
4460X	PAR 36	3 Screw Terminals	12.8/12.8	40W/40W	34	38
4460X-4	PAR 36	3 Screw Terminals	12.8/12.8	60W/60W	35	2
4461	PAR 36	Screw Terminals	12.8	60W	34	45
4464	PAR 36	Screw Terminals	12.8	60W	34	46
4464R	PAR 36	Screw Terminals	12.8	60W	34	47
4466	PAR 36	Screw Terminals	12.8	60W	35	1
4467	PAR 46	3 Contact Lugs	12.8/12.8	50W/35W	36	13
4468	PAR 36	Slip-on Terminals	5.3	0.5A	33	18
4478	PAR 46	2 Contact Lugs	13.0	60W	36	15
4492	PAR 46	3 Contact Lugs	12.8/12.8	60W/60W	36	14
4502	PAR 36	Screw Terminals	28.0	50W	35	12
4505	PAR 36	Screw Terminals	28.0	50W	35	13
4509	PAR 36	Screw Terminals	13.0	100W	35	4
4509X	PAR 36	Screw Terminals	13.0	100W	35	5

Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps		
4510	PAR 36	Screw Terminals	6.4	25W	33	39
4511	PAR 36	Screw Terminals	6.2	30W	33	31
4515	PAR 36	Screw Terminals	6.4	30W	33	41
4516	PAR 36	Screw Terminals	6.2	30W	33	30
4519	PAR 36	Screw Terminals	13.0	100W	35	6
4522	PAR 46	Screw Terminals	13.0	250W	36	22
4530	PAR 46	Screw Terminals	26.0	5.3A	36	27
4531	PAR 46	Screw Terminals	12.5	40W	35	35
4535	PAR 46	Screw Terminals	6.4	30W	35	31
4537	PAR 46	Screw Terminals	13.0	100W	36	17
4537-1	PAR 46	Slip-on Terminals	13.0	100W	36	18
4537-2	PAR 46	Screw Terminals	13.0	100W	36	19
4537X	PAR 46	Screw Terminals	13.0	100W	36	20
4541	PAR 56	Screw Terminals	28.0	450W	37	7
4543	PAR 56	Screw Terminals	12.5	100W	36	45
4545	PAR 56	Screw Terminals	12.0	100W	36	44
4546	PAR 36	Screw Terminals	4.7	0.5A	33	13
4546-1	PAR 36	Slip-on Terminals	4.7	0.5A	33	14
4547	PAR 36	Screw Terminals	4.75	1.25A	33	15
4547-4	PAR 36	Screw Terminals	4.75	1.25A	33	16
4551	PAR 46	Screw Terminals	28.0	250W	36	34
4552	PAR 64	Screw Terminals	28.0	250W	37	8
4553	PAR 46	Screw Terminals	28.0	250W	36	35
4554	PAR 46	Screw Terminals	28.0	450W	36	36
Q4554	PAR 46	Screw Terminals	28.0	450W	36	37
4555	PAR 64	Screw Terminals	115.0	1.000W	37	14
4557	PAR 64	3 Screw Terminals	28.0/28.0	1,000W/400W	37	13
4559	PAR 64	Screw Terminals	28.0	600W	37	9
Q4559	PAR 64	Screw Terminals	28.0	600W	37	10
Q4559X	PAR 64	Screw Terminals	28.0	600W	37	11
4570	PAR 46	Screw Terminals	28.0	150W	36	31
4571	PAR 46	Screw Terminals	28.0	150W	36	32
4572	PAR 46	Screw Terminals	28.0	150W	36	33
4578	PAR 46	2 Contact Lugs	28.0	60W	36	28
4579	PAR 46	3 Contact Lugs	28.0	80W/60W	36	30
4580	PAR 46	Screw Terminals	28.0	450W	36	38
4581	PAR 46	Screw Terminals	28.0	450W	36	39
4582	PAR 46	Screw Terminals	28.0	450W	36	40
4587	PAR 36	Screw Terminals	28.0	250W	35	24
4589	PAR 36	Screw Terminals	28.0	50W	35	14
4591	PAR 36	Screw Terminals	28.0	100W	35	19
4593	PAR 36	Screw Terminals	28.0	50W	35	15
4594	PAR 36	Screw Terminals	28.0	100W	35	20
4595	PAR 36	Screw Terminals	13.0	100W	35	7
4596	PAR 36	Screw Terminals	28.0	250W	35	25
Q4597	PAR 46	Screw Terminals	28.0	450W	36	41
4603	PAR 36	Screw Terminals	12.8	35W	34	25
4603X	PAR 36	Screw Terminals	12.8	35W	34	26
4606	PAR 46	Screw Terminals	5.7	3.7A	35	28
4614	PAR 36	Screw Terminals	6.0	100W	33	29
4626	PAR 36	Screw Terminals	28.0	150W	35	23
4627	PAR 36	Screw Terminals	28.0	100W	35	21
Q4629	PAR 64	Screw Terminals	28.0	600W	37	12
Q4631	PAR 36	Screw Terminals	13.0	250W	35	10
Q4632	PAR 36	Screw Terminals	13.0	250W	35	11
4633R	PAR 46	Slip-on Terminals	14.0	80W	36	23
4634	PAR 36	Screw Terminals	6.0	75W	33	28
4635	PAR 46	Screw Terminals	16.5	450W	36	26
4636	PAR 46	Screw Terminals	14.0	80W	36	24
4636-1	PAR 46	Slip-on Terminals	14.0	80W	36	25
4651	165 mm	2 Contact Lugs	12.8	50W	33	1
H4651	165 mm	2 Contact Lugs	12.8	50W	33	2
4652	165 mm	3 Contact Lugs	12.8/12.8	40W/60W	33	3
H4656	165 mm	3 Contact Lugs	12.8/12.8	35W/35W	33	5
4667	PAR 36	Mogul End Prongs	6.4	18W	33	34
4667-1	PAR 36	Slip-on Terminals	6.4	18W	33	35
4675	PAR 36	Slip-on Terminals	13.0	75W	35	3
Q4681	PAR 46	Screw Terminals	28.0	450W	36	42
4700	PAR 36	3 Screw Terminals	13.0/13.0	100W/100W	35	8
4705	PAR 46	3 Screw Terminals	13.0/13.0	100W/100W	36	21
4750	PAR 36	Screw Terminals	28.0	60W	35	17
4752	PAR 36	Screw Terminals	28.0	60W	35	18
4767	PAR 36	Mogul End Prongs	6.4	25W	33	36
4767-1	PAR 36	Slip-on Terminals	6.4	25W	33	37
4767-2	PAR 36	Screw Terminals	6.4	25W	33	38

# Numerical Index—Sealed Beam Lamps

Lamp No.	Bulb	Base	Design		Page No.	Line No.	Lamp No.	Bulb	Base	Design		Page No.	Line No.
			Volts	Watts or Amps						Volts	Watts or Amps		
4776	PAR 36	Screw Terminals	12.8	25W	34	10	H7552	PAR 36	Screw Terminals	6.0	10W	33	25
4800	PAR 56	3 Contact Lugs	28.0/28.0	50W/40W	37	4	H7553	PAR 36	Screw Terminals	6.0	12W	33	26
4811	PAR 36	3 Contact Lugs	28.0/28.0	110W/55W	35	22	H7554	PAR 36	Screw Terminals	6.0	20W	33	27
4825R	PAR 36	3 Screw Terminals	28.0/28.0	50W/18W	35	16	H7555	PAR 36	Screw Terminals	12.0	8W	33	42
4860	PAR 56	Waterproof Terminals	28.0/28.0	80W/60W	37	5	H7556	PAR 36	Screw Terminals	6.0	6W	33	19
4863	PAR 56	Waterproof Terminals	28.0/28.0	80W/80W	37	6	H7557	PAR 36	Screw Terminals	12.0	12W	34	1
4880	PAR 46	2 Contact Lugs	28.0	60W	36	29	H7600	PAR 36	Screw Terminals	12.8	37.5W	34	32
4912-1	165 mm	Slip-on Terminals	12.8	50W	33	6	H7601-1	PAR 36	Slip-on Terminals	12.8	37.5W	34	33
4913-1	165 mm	Slip-on Terminals	12.8	50W	33	7	H7604	PAR 36	Screw Terminals	12.8	50W	34	42
4919-1	165 mm	Slip-on Terminals	12.8	50W	33	8	H7606	PAR 36	Screw Terminals	12.8	50W	34	39
4921-1	165 mm	Slip-on Terminals	12.8	100W	33	9	H7609	PAR 46	Screw Terminals	12.8	50W	36	9
H5006	PAR 46	3 Contact Lugs	12.8/12.8	35W/35W	35	49	H7610	PAR 36	Screw Terminals	12.8	50W	34	40
6006	PAR 56	3 Contact Lugs	6.1/6.2	50W/40W	36	43	H7612	PAR 46	Screw Terminals	12.8	37.5W	36	5
6014	PAR 56	3 Contact Lugs	12.8/12.8	60W/50W	36	46	7613	PAR 36	Screw Terminals	6.0	8W	33	21
6015	PAR 56	3 Contact Lugs	12.8/12.8	60W/50W	37	1	7613-1	PAR 36	Slip-on Terminals	6.0	8W	33	22
H6024	PAR 56	3 Contact Lugs	12.8/12.8	65W/35W	36	47	H7614	PAR 36	Screw Terminals	12.8	50W	34	41
6052	200 mm	3 Contact Lugs	12.8/12.8	65W/55W	33	11	H7616	PAR 36	Screw Terminals	12.8	37.5W	34	34
H6054	200 mm	3 Contact Lugs	12.8/12.8	65W/35W	33	12	H7616-1	PAR 36	Slip-on Terminals	12.8	37.5W	34	35
7400	PAR 36	Slip-on Terminals	12.8	35W	34	29	H7619	PAR 46	Screw Terminals	12.8	50W	36	10
7400-1	PAR 36	Screw Terminals	12.8	35W	34	30	H7621-1	PAR 46	Slip-On Terminals	12.8	50W	36	11
7400R	PAR 36	Slip-on Terminals	12.8	35W	34	31	H7635	PAR 46	Screw Terminals	12.8	50W	36	12
7414Y	PAR 36	Screw Terminals	12.8	18W	34	8	7672-1	PAR 36	Slip-on Terminals	6.0	7.2W	33	20
H7550	PAR 36	Screw Terminals	6.0	8W	33	23	H7675-1	PAR 36	Slip-on Terminals	12.8	50W	34	43
H7551	PAR 36	Screw Terminals	6.0	8W	33	24	H7921-1	165 mm	Slip-on Terminals	12.8	50W	33	10

## New Sealed Beam Lamps Added To This Publication:

H6024

H7601-1

H7921-1

H7557

H7621-1

7672-1

# All-Glass Wedge Base Lamp Information

Manufacturers are now able to save time, money, weight, and space by using all-glass wedge base lamps instead of conventional metal-base miniature and subminiature lamps. With the introduction of all-glass wedge base lamps in 1959, General Electric eliminated a variety of design and cost constraints which had limited the manufacturers of automotive, electrical, and electronic equipment. Potential applications for these lamps include a wide variety of product lines such as automobiles, trucks, large and small appliances, toys, novelties, aircraft, coin-operated machines, boats, tractors, recreational vehicles, and fiber-optic devices (using lamps with lenses or reflectors).

## Why should you choose GE all-glass wedge base lamps?

### They're small and save on costs.

GE all-glass wedge base lamps require only a minimum of space. And because there's no need for the complicated metal sockets and wiring devices normally used with metal-base lamps, you can save even more space by using printed circuits with simple plastic sockets or clips and molded plastic components.

### They're easy to use.

Just push to install, pull to remove. There's no twisting required, which saves time and money in assembly operations. And the simple push-in motion adapts readily to automatic assembly equipment, even to vibratory bowl feeders. In addition, the filament plane is the same from lamp to lamp. So the light from a new all-glass wedge base lamp is always in the same direction as that from the lamp being replaced.

### They're reliable.

Since their introduction, GE all-glass wedge base lamps have performed reliably under some of the most severe operating conditions, including shocks, vibration, heat, cold, and moisture. With no metal base or soldered connections to work loose, break, or corrode, most of these lamps can be operated in ambient temperatures of up to 230°C (450°F) instead of the 175°C (350°F) limit of conventional metal-base lamps.\*

GE increases the corrosion resistance of all-glass wedge base lamps by nickel-plating the lead wires. However, nickel-plated wires are not easily solderable.

A copper clad lead material is used in lamps with extended leads and in subminiature wedge base lamps designed for use in circuits of under 12 volts. The lead wires on these lamps have been processed to enhance solderability, but solderability will be affected if the lamps are not used within 6 months of shipment.

## And they're available in a full range of types and sizes.

GE all-glass wedge base lamps are available in voltages ranging from 2.5 to 28, and in candlepower from .03 to 21. Bulb sizes range from 6 mm subminiature to 10 and 16 mm miniature diameters. In the event none of these types fits your application, General Electric will, if possible, design and manufacture a special lamp for you. Sockets for GE all-glass wedge base lamps are commercially available from a number of manufacturers.

Additional information about all-glass wedge base lamps and other GE lighting products may be obtained from your local GE Lamp Representative.

\*Note: The light output of lamps 70, 74, 168, and 194 will be reduced if operated continuously at 230°C.

GE all-glass wedge base lamp sizes:



T-1 1/4  
6 mm (1/2 in.)



T-3 1/4  
10 mm (1 1/2 in.)



T-5  
16 mm (5/8 in.)

# All-Glass Wedge Base Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candlepower	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Atmosphere B-Vac./C-Gas	Figure No.
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## T-1<sup>3</sup>/<sub>4</sub> BULB <sup>7</sup>/<sub>32</sub>" (6mm) DIAMETER<sup>(2)</sup>

11-1	<b>11</b>	Instrument & Indicator <sup>(130)</sup>	2.5	.20A	.20 <sup>(2)</sup>	C-2R	.40	.80	1,000	B	52
-2	<b>75X</b>	Indicator—Lens End <sup>(130)</sup>	2.5	.35A	—	C-2R	—	.80	10,000 <sup>(116)</sup>	B	48
-3	<b>56X</b>	Indicator <sup>(130)</sup>	5	.115A	.15 <sup>(2)</sup>	C-2F	—	.40	20,000 <sup>(75)(79)</sup>	B	52
-4	<b>79</b>	Indicator <sup>(130)</sup>	6	.20A	.60 <sup>(2)</sup>	C-2R	.40	.80	1,000	B	52
-5	<b>84</b>	Indicator <sup>(130)</sup>	6.3	.04A	.03 <sup>(2)</sup>	C-2V <sup>(13)</sup>	.40	.80	20,000 <sup>(79)</sup>	B	52
-6	<b>86</b>	Indicator <sup>(130)</sup>	6.3	.20A	.40 <sup>(2)</sup>	C-2F	.40	.80	20,000 <sup>(79)</sup>	B	52
-7	<b>18</b>	Indicator	14	.04A	.13 <sup>(2)</sup>	C-2F	.40	.80	5,000 <sup>(79)</sup>	B	52
-8	<b>73</b>	Instrument & Indicator	14	.08A	.30 <sup>(2)</sup>	C-2F	.40	.80	15,000 <sup>(79)</sup>	B	52
-9	<b>73E</b>	Instrument & Indicator—Ext. Leads ( <sup>3</sup> / <sub>4</sub> " ± <sup>1</sup> / <sub>8</sub> ") <sup>(122)(129)</sup>	14	.08A	.30 <sup>(2)</sup>	C-2F	—	.80	15,000 <sup>(79)</sup>	B	55
-10	<b>37</b>	Instrument & Indicator	14	.09A	.50 <sup>(2)</sup>	C-2F	.40	.80	2,500	B	52
-11	<b>37E</b>	Instrument & Indicator—Ext. Leads ( <sup>3</sup> / <sub>4</sub> " ± <sup>1</sup> / <sub>8</sub> ") <sup>(122)(129)</sup>	14	.09A	.50 <sup>(2)</sup>	C-2F	—	.80	2,500	B	52
-12	<b>74</b>	Instrument & Indicator	14	.10A	.70 <sup>(2)</sup>	C-2F	.40	.80	1,000	B	52
-13	<b>70</b>	Instrument & Indicator <sup>(14)(126)</sup>	14	.15A	1.5	C-2F	.40	.80	100	B	52
-14	<b>85</b>	Indicator	28	.04A	.30 <sup>(2)</sup>	C-2F	.40	.80	7,000 <sup>(79)</sup>	B	52
-15	<b>85E</b>	Indicator—Ext. Leads ( <sup>3</sup> / <sub>4</sub> " ± <sup>1</sup> / <sub>8</sub> ") <sup>(122)(129)</sup>	28	.04A	.30 <sup>(2)</sup>	C-2F	—	.80	7,000 <sup>(79)</sup>	B	55

## T-3<sup>1</sup>/<sub>4</sub> BULB <sup>13</sup>/<sub>32</sub>" (10mm) DIAMETER<sup>(2)</sup> (continued)

-16	<b>127</b>	Toy Indicator	2.47	.275A	.48 <sup>(2)</sup>	C-2R	.65	1.06	30	B	77
-17	<b>285</b>	Signal	5	.09A	.25 <sup>(2)</sup>	C-2R	.56	1.06	1,500 <sup>(116)</sup>	B	77
-18	<b>227E</b>	Indicator—Ext. Leads <sup>(122)(129)</sup>	5.67	.15A	.60 <sup>(2)</sup>	C-2R	—	1.06	200	B	77
-19	<b>820</b>	Barricade Flasher	6	.14A	.35 <sup>(2)</sup>	C-2V <sup>(13)</sup>	.56	1.06	1,200	B	77
-20	<b>159</b>	Radio/TV Indicator	6.3	.15A	.34 <sup>(2)</sup>	C-2R	.50	1.06	5,000 + <sup>(44)</sup>	B	77
-21	<b>447</b>	Indicator	6.3	.15A	.52 <sup>(2)</sup>	C-2V <sup>(13)</sup>	.56	1.06	1,500	B	77
-22	<b>259</b>	Radio/TV Indicator	6.3	.25A	.65 <sup>(2)</sup>	C-2R	.68	1.06	5,000 + <sup>(44)</sup>	B	77
-23	<b>555</b>	Coin/Novelty—Heavy Duty	6.3	.25A	.90 <sup>(2)</sup>	C-2R	.65	1.06	3,000	B	77
-24	<b>147</b>	Indicator	7.0	.43A	2	C-2R	.56	1.06	1,500	B	77
-25	<b>280</b>	Signal	10	.13A	.85 <sup>(2)</sup>	C-2V	.56	1.06	250	B	77
-26	<b>558</b>	Auto Indicator—Lens End <sup>(68)</sup>	13	.33A	—	C-2V <sup>(13)</sup>	—	1.06	500	B	77
-27	<b>192</b>	Auto Instrument & Indicator	13	.33A	3	C-2V <sup>(13)</sup>	.56	1.06	1,000	B	77
-28	<b>W10/3</b>	European Auto Instrument	13.5	.22A	1.75	C-2V <sup>(13)</sup>	12.7mm	26.8mm	1,000	B	77
-29	<b>658</b>	Indicator	14	.08A	.31 <sup>(2)</sup>	C-2F	.56	1.06	15,000 <sup>(43)</sup>	B	77
-30	<b>161</b>	Auto Instrument—Heavy Duty	14	.19A	1	C-2F	.56	1.06	4,000	B	77
-31	<b>158</b>	Auto Instrument & Indicator	14	.24A	2	C-2V <sup>(13)</sup>	.56	1.06	500	B	77
-32	<b>194</b>	Auto Instrument—Heavy Duty	14	.27A	2	C-2F	.56	1.06	2,500	B	77
-33	<b>194E</b>	Truck Clearance—Ext. Leads <sup>(122)</sup>	14	.27A	2	C-2F	—	1.06	2,500	B	—
-34	<b>194E-1</b>	Truck Clearance—Ni Plated Ext. Leads <sup>(122)</sup>	14	.27A	2	C-2F	—	1.06	2,500	B	—
-35	<b>124E-1</b>	Truck Clearance—Ni Plated Ext. Leads <sup>(122)</sup>	14	.27A	1.5	C-2F	—	1.06	5,000 +	B	—
-36	<b>194NA</b>	Auto—Natural Amber Bulb	14	.27A	1.5	C-2F	.56	1.06	2,500	B	77
-37	<b>194A</b>	Auto Side Marker—Amber (yellow) silicone coating—Heavy Duty <sup>(132)</sup>	14	.27A	—	C-2F	—	1.06	2,500	B	77
-38	<b>168</b>	Auto Instrument	14	.35A	3	C-2F	.56	1.06	1,500	B	77
-39	<b>585</b>	Indicator	28	.04A	.30 <sup>(2)</sup>	C-2F	.56	1.06	7,000 <sup>(79)</sup>	B	77
-40	<b>656</b>	Indicator	28	.06A	.62 <sup>(2)</sup>	C-2F	.56	1.06	2,500	B	77
-41	<b>657</b>	Indicator	28	.08A	.62 <sup>(2)</sup>	C-2F	.56	1.06	15,000 + <sup>(43)(79)</sup>	B	77
-42	<b>400</b>	Aircraft	28	.10A	1.6 <sup>(2)</sup>	C-2F	.56	1.06	1,000	B	77
-43	<b>464</b>	Aircraft	28	.17A	3 <sup>(2)</sup>	C-2F	.56	1.06	1,500	B	77

## T-5 BULB <sup>5</sup>/<sub>8</sub>" (16mm) DIAMETER<sup>(2)</sup>

-44	<b>914</b>	Emergency Lighting	4	.90A	3.5	C-6	.75	1.49	50	C	86
-45	<b>926</b>	Emergency Lighting	4	1.8A	7.5	C-2R	.81	1.49	50	C	86
-46	<b>909</b>	Emergency Lighting	6	.62A	3.8	C-2R	.81	1.49	30	C	86
-47	<b>927</b>	Emergency Lighting	6	1.2A	8	C-2R	.81	1.49	50	C	86
-48	<b>908</b>	Emergency Lighting	6	1.5A	12 <sup>(2)</sup>	C-2R	.81	1.49	50	C	86
-49	<b>915</b>	Emergency Lighting	12	.75A	11	C-2R	.81	1.49	50	C	86
-50	<b>912</b>	Auto—Heavy Duty	12.8	1.0A	12	C-2R	.81	1.49	1,000	C	86
-51	<b>917</b>	Home Appliance	12.8	1.2A	10	C-2F	.81	1.49	1,200	C	56
-52	<b>921</b>	Auto—Heavy Duty <sup>(121)</sup>	12.8	1.4A	21	C-2R	.81	1.49	1,000	C	86
-53	<b>906</b>	Auto—Heavy Duty	13	.69A	6	C-2F	.81	1.49	1,000	C	86
-54	<b>904</b>	Auto—Heavy Duty	13.5	.69A	4	C-2F	.81	1.49	5,000 + <sup>(14)</sup>	C	86

# High Output Halogen-Cycle Lamp Information

Halogen-cycle lamps, which belong to the incandescent lamp family, are totally unlike conventional miniature and subminiature lamps. Special high-temperature glass or quartz bulbs enable halogen-cycle lamps to be operated at high wattages and to produce a very high light output from a very small lamp package. The high operational efficiency of halogen-cycle lamps is ensured through strict production quality standards which include: (a) consistency in positioning filaments in each bulb; and (b) uniformity in maintaining the shape and thickness of high-temperature glass bulb tops. Potential applications for these lamps include lanterns, medical and scientific instruments, safety/warning and emergency lighting, photocells, photographic equipment, spot/flood lighting, and fiber-optic devices (using lamps with lenses or reflectors).

## What advantages do halogen-cycle lamps have over conventional miniature and subminiature lamps?

### Higher light output from less energy and a smaller lamp package.

A simple frame of reference can serve to explain just how much brighter a halogen-cycle lamp is, compared with other ordinary lamps. A typical halogen-cycle miniature lamp rated at 62 watts produces as much light as a standard 60-watt household bulb. Yet the halogen-cycle lamp is  $\frac{1}{6}$  the size of the household lamp. It's easy to see, then, that a small, low-voltage halogen-cycle lamp could produce as much or more light than a larger, higher-voltage conventional miniature or subminiature lamp while saving both energy and space.

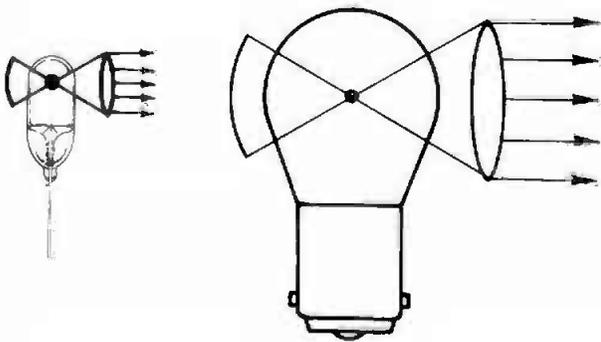
### And higher maintained light output over life.

Unlike conventional lamps, halogen-cycle lamps can be operated at high wattages without sacrificing the light output over life. So most halogen-cycle lamps produce 85 to 95% of their initial light output at 70% of their life expectancy. The high temperatures these lamps' wattages generate allow a lamp's halogen vapor to combine with particles of tungsten which have evaporated from the filament. The vapor then redeposits these particles back onto the filament, virtually eliminating bulb blackening due to tungsten deposits on the bulb wall.

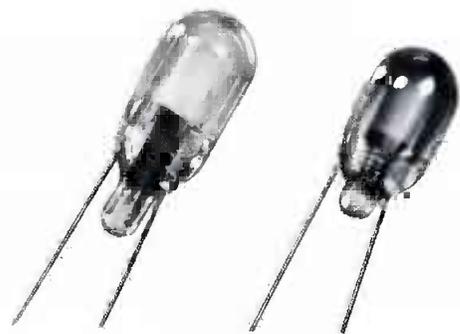
## GE halogen-cycle lamps are available in a full range of types and sizes.

GE offers halogen-cycle lamps ranging in voltages from 3.5 to 32, and in candlepower from 2.5 to 600. Lamp sizes range from 4.7 mm subminiature to 13 mm miniature diameters. In the event none of these types fits your application, General Electric will, if possible, design and manufacture a special lamp for you. Sockets for GE halogen-cycle lamps are commercially available from a number of manufacturers.

Additional information about halogen-cycle lamps and other GE lighting products may be obtained from your local GE Lamp Representative.



Halogen-cycle lamp versus conventional incandescent lamp of equivalent wattage. Note the much smaller size of the halogen-cycle lamp on the left.



Halogen-cycle lamp versus vacuum incandescent lamp at 70% of life. Note the bulb blackening of the incandescent lamp on the right.

# Design Features—Halogen Lamps & Sealed Beams

Design factors—such as the lamp socket, limitations of housing space, power source, light output, wattage, life, ambient temperature, and the possibility of shock and vibration—should be considered carefully when selecting lamps.

## GE manufactures four types of halogen-cycle lamps:

### Power Plus™ glass halogen miniature and subminiature lamps.

The increased range in candlepower and wattages of these halogen-cycle lamps allows for many new and present design applications. The lamp design consists of a hemispherical bulb top with more uniform light output than a top-tipped halogen lamp. The sturdy nickel-plated iron leads in two-pin types allow for positive electrical connection, minimizing voltage drops due to intermittent connections. Although these lamps can be damaged by thermal shock, they are not subject to devitrification. Electrical connections to lamps offered with molybdenum leads can be made by crimping or welding. The big "plus" for all Power Plus lamps is cost . . . considerably less than Quartzline lamps.

### Quartzline® fused quartz miniature lamps.

Quartzline lamps are normally used in special applications, but can also be used in many general applications if the designer chooses. Although considerably more costly than high-temperature glass halogen-cycle lamps, Quartzline lamps can withstand thermal shock. A lighted Quartzline lamp, for instance, will not crack or break even when suddenly exposed to water or ice.

### Glass halogen sealed beam lamps.

Designated in this catalog by the prefix "H", these lamps are being used in many new applications to take advantage of their higher light output compared with standard incandescent sealed beam lamps. Standard PAR 36, PAR 46, PAR 56, 165 mm, and 200 mm sizes allow possible use in existing housings, and several different beam patterns are available for a variety of applications.

### Quartzline® fused quartz sealed beam lamps.

Designated in this catalog by the prefix "Q", these lamps are mainly used for aircraft exterior applications. Except for the smaller halogen-cycle lamps inside, they resemble automotive headlamps and are available in PAR 36, PAR 46, and PAR 64 sizes. When other applications are being considered, contact your local GE Lamp Representative for additional information or assistance.

## Consider these factors when selecting GE halogen-cycle lamps:

### Lamp Efficacy and Operating Precautions.

The Power Plus lamps listed in this catalog are filled to high internal gas pressures to maximize lamp efficacy (candlepower or lumens per watt). Because both lamp bulb material and pressure vary by lamp design, different **CAUTION** notices apply. Be sure to see the appropriate notice(s) for the lamp(s) you select.

### Operating Temperatures.

Because operating temperatures (watts plus environment) are critical to the effectiveness of the self-cleaning properties of halogen-cycle lamps, bulb wall temperatures should not go below 250°C. Hot spots on the bulb wall itself can go as high as 700°C in normal operation.

Substantial heat is generated in all halogen-cycle lamps, so allowances should be made for the dissipation of excessive heat in equipment design. Certain lamps and extremely confined fixtures may require additional ventilation or heat sinking to ensure proper operation of the halogen cycle and prevent damage to the fixture. It is a good practice to test the lamp in the operating environment early in the design cycle to ensure adequate performance. Precautions must be taken in the selection of materials for lampholders, reflectors, and lamp housings because the 700°C bulb wall temperature is greater than the kindling temperatures of many materials.

Lamp base temperatures should not exceed 350°C because, above that point, lead wires may deteriorate and the basing cement may loosen, causing premature lamp failure.

### Distribution of Spectral Radiation.

Halogen-cycle lamps offer great amounts of visible and infrared energy from a small light source, with about 90% of the energy in the infrared. Some GE lamps can be used for special applications where small amounts of ultraviolet energy are required.

# Halogen-Cycle Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candlepower	Base	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Figure No.	Approx. Color Temp. (K)
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## POWER-PLUS™ MINIATURE AND SUBMINIATURE LAMPS

### T-1½ BULB 3/16" (4.7mm) DIAMETER<sup>(2)</sup>

14-1	2600	Instrument <sup>(11)*</sup>	3.5	2.5W	2.9	Wire Terminal <sup>(61)</sup>	C-6	—	.52	20 <sup>(116)</sup>	96	3100
-2	2601	Instrument—Lens End <sup>(11)*</sup>	3.5	2.5W	— <sup>(140)</sup>	Wire Terminal <sup>(61)</sup>	C-6	—	.52	20 <sup>(116)</sup>	95	3100
-3	2700	Instrument <sup>(11)*</sup>	3.5	2.5W	2.5	S.C. Midget Flanged	C-6	.32	.63	20 <sup>(116)</sup>	97	3100
-4	2701	Instrument—Lens End <sup>(11)*</sup>	3.5	2.5W	— <sup>(140)</sup>	S.C. Midget Flanged	C-6	—	.63	20 <sup>(116)</sup>	98	3100

### T-2 BULB ¼" (6.3mm) DIAMETER<sup>(2)</sup>

-5	3027	Instrument <sup>(11)*</sup>	6.3	13.2W	16	G-4	C-6	.89	1.10	75 <sup>(116)</sup>	—	3025
-6	3026	Instrument <sup>(11)*</sup>	6.3	13.2W	17.5	Wire Terminal <sup>(61)</sup>	C-6	—	.66	75 <sup>(116)</sup>	99	3025

### T-2¼ BULB 3/32" (7.5mm) DIAMETER<sup>(2)</sup>

-7	784	Emergency Lighting <sup>(131)*</sup>	6	6W	9	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	50	100	3175
-8	785	Emergency Lighting <sup>(131)*</sup>	6	8W	13	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	50	100	3175
-9	787	Instrument <sup>(131)*</sup>	6	10W	16	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	100	100	3150
-10	767	Aircraft <sup>(131)*</sup>	6	12W	19	Miniature Bayonet	C-6	.56	1.13	50 <sup>(75)</sup>	—	—
-11	786	Emergency Lighting <sup>(131)*</sup>	6	12W	19	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	50	100	3175
-12	788	Instrument <sup>(131)*</sup>	6	20W	32	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	100	100	3150
-13	774	Emergency Lighting <sup>(131)*</sup>	12	8W	13	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	50	100	3100
-14	783	Emergency Lighting <sup>(131)*</sup>	12	12W	22	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.0	50	100	3150

### T-2¾ BULB 11/32" (8.7mm) DIAMETER<sup>(2)</sup>

-15	2604X	Instrument Lens End <sup>(131)*</sup>	5	10W	— <sup>(128)</sup>	G-4 Two Pin <sup>(124)</sup>	C-6	—	1.05	5,000	102	2600
-16	2605	Instrument—Lens End <sup>(131)(141)*</sup>	6	10W	—	G-4 Two Pin <sup>(124)</sup>	C-6	—	1.05	100	102	3150
-17	778	Instrument—High Temp. Fixtures <sup>(131)*</sup>	6	20W	32	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	100	101	3150
-18	794	Special Service <sup>(131)*</sup>	10.5	15.7W	15	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	5,000	101	2600
-19	773	Special Service <sup>(131)*</sup>	12	8W	10	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	1,000 <sup>(75)</sup>	101	—
-20	789	Instrument <sup>(131)*</sup>	12	14W	22	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	200	101	3100
-21	782	Special Service <sup>(131)*</sup>	12	20W	25	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	2,000	101	2800
-22	790	Instrument <sup>(131)*</sup>	14	25W	42	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	200	101	3100
-23	791	Instrument <sup>(131)*</sup>	14	35W	61	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.05	200	101	3100
-24	792	Instrument <sup>(131)*</sup>	14	50W	90	G-4 Two Pin <sup>(124)</sup>	C-6	.77	1.14	200	101†	3100

### T-3¼ BULB 13/32" (10mm) DIAMETER<sup>(2)</sup>

-25	7695	Emergency Lighting <sup>(131)*</sup>	12.8	50W	100	S.C. Bayonet	C-6	1.25	2.25	200	103	3150
-26	880	Auto, Fog <sup>(17)(131)*</sup> Shielded Bulb	12.8	27W	43*	Axial Plastic Prefocus	C-6	1.25	2.68	300	115	2950
-27	881	Auto, Fog <sup>(17)(131)*</sup> Shielded Bulb	12.8	27W	43*	Right Angle Plastic Prefocus	C-6	1.25	2.68	300	116	2950

### PAR-18 BULB 2¼" (57mm) DIAMETER<sup>(2)</sup>

-28	HR9000	Emergency Lighting <sup>(145)*</sup>	6	7W	—	G-6 Two Pin	C-6	—	2.21	50	104	—
-29	HR9001	Emergency Lighting <sup>(145)*</sup>	6	12W	—	G-6 Two Pin	C-6	—	2.21	50	104	—
-30	HR9002	Emergency Lighting <sup>(145)*</sup>	12	12W	—	G-6 Two Pin	C-6	—	2.21	50	104	—

## QUARTZLINE® MINIATURE LAMPS

### T-3 BULB 3/8" (9.5mm) DIAMETER<sup>(2)</sup>

-31	1974	Quartzline® Instrument <sup>(114)*</sup> —3" Bare Leads Horizontal	6	20W	10 <sup>(2)</sup>	Wire Terminal	C-6	.28	1.14	10,000+	106	2550
-32	1974D	Quartzline® Instrument <sup>(114)*</sup> —5" Insulated Leads Down	6	20W	10 <sup>(2)</sup>	Wire Terminal	C-6	.28	1.14	10,000+	106	2550
-33	1392	Quartzline® Instrument <sup>(114)*</sup>	6.0	20.4W	10 <sup>(2)</sup>	Two Pin on Reflector	C-6	—	1.74	10,000	—	2550
-34	1977	Quartzline® Special Service <sup>(114)*</sup>	8.5	62W	110	Double Slide	C-6	.44	1.14	50	108	3100
-35	1962	Quartzline® Special Service <sup>(114)*</sup> —3" Bare Leads Horizontal	8.5	62W	110	Wire Terminal	C-6	.28	1.14	50	106	3100

\*See CAUTION notice contained in this footnote.

†But M.O.L. 1.14".

\*The filament will generate 43 mscp in a clear bulb.

See FOOTNOTES, pages 37-39

# Halogen-Cycle Lamp Specifications (Continued)

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candlepower	Base	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Figure No.	Approx. Color Temp. (K)
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## QUARTZLINE® MINIATURE LAMPS (continued)

T-3 BULB 3/8" (9.5mm) DIAMETER<sup>(2)</sup> (continued)

15-1	1962B	Quartzline® Special Service <sup>(114)*</sup> — 9" Insulated Leads Horizontal	8.5	62W	110	Insulated Leads	C-6	.28	1.14	50	106	3100
-2	1962DZ	Quartzline® Special Service <sup>(114)*</sup> — 12" Insulated Leads Down	8.5	62W	80	Wire Terminal	C-6	.28	1.2	150	106	3050
-3	1962DX	Quartzline® Special Service <sup>(114)*</sup> — 4" Bare Leads Down	8.5	62W	80 <sup>(2)</sup>	Wire Terminal	C-6	.29	1.14	150	106	3050
-4	1962TX	Quartzline® Special Service <sup>(114)*</sup> — 2 1/2" Insulated Leads Horizontal With AMP 42599-2 Female Slip-on Terminals	8.5	62W	110 <sup>(2)</sup>	Wire Terminal	C-6	.29	—	50	106	3100
-5	1978X	Quartzline® Aircraft <sup>(114)*</sup>	10	100W	130 <sup>(2)</sup>	Special	C-8	—	2.15	2,000	111	2800
-6	1988	Quartzline® Aircraft <sup>(114)*</sup>	10	100W	130 <sup>(2)</sup>	Special	C-8	—	2.15	2,000	—	2800
-7	1975	Quartzline® Aircraft <sup>(114)*</sup>	12.8	25W	25 <sup>(2)</sup>	Double Slide	C-6	.44 <sup>(147)</sup>	1.17	500	108	2900
-8	1976	Quartzline® Aircraft <sup>(114)*</sup>	13	75W	115 <sup>(2)</sup>	Double Slide	C-6	.56	1.3	400	110	3000
-9	1968	Quartzline® Aircraft <sup>(114)*</sup>	28	25W	15 <sup>(2)</sup>	Double Slide	C-2V <sup>(131)</sup>	.41	1.17	500	108	2700
-10	1982	Quartzline® Aircraft <sup>(114)*</sup>	28	75W	110 <sup>(2)</sup>	S.C. Bayonet	CC-8 <sup>(131)</sup>	1.06	1.88	1,000	114	2850
-11	1970	Quartzline® Aircraft <sup>(114)*</sup>	28	100W	150 <sup>(2)</sup>	Special Sleeve	CC-8	—	2.25	1,000	107	2950
-12	1970X	Quartzline® Aircraft <sup>(114)*</sup>	28	100W	140 <sup>(2)</sup>	Special Sleeve	CC-8 <sup>(131)</sup>	—	2.25	1,000	107	2800
-13	1964	Quartzline® Aircraft <sup>(114)*</sup>	28	150W	230 <sup>(2)</sup>	Special Sleeve	CC-8	—	2.25	1,000	107	2950
-14	1967	Quartzline® Aircraft <sup>(114)*</sup>	28	150W	210 <sup>(2)</sup>	Special Sleeve	CC-8 <sup>(131)</sup>	—	2.25	1,000	107	2950

## POWER-PLUS™ MINIATURE LAMPS

T-3 1/4 BULB 13/32" (10mm) DIAMETER<sup>(2)</sup>

-15	880	Auto, Fog <sup>(17)(131)*</sup> Shielded Bulb	12.8	27W	43*	Axial Plastic Prefocus	C-6	1.25	2.68	300	115	2950
-16	881	Auto, Fog <sup>(17)(131)*</sup> Shielded Bulb	12.8	27W	43*	Right Angle Plastic Prefocus	C-6	1.25	2.68	300	116	2950

T-4 BULB 1/2" (13mm) DIAMETER<sup>(2)</sup>

-17	1983	Quartzline® Aircraft <sup>(114)*</sup>	10	100W	130 <sup>(2)</sup>	Wire Terminal	C-8 <sup>(131)</sup>	1.25	1.8	2,000	112	2800
-18	1960	Quartzline® Instrument <sup>(114)*</sup>	11	60W	90 <sup>(2)</sup>	Tab	CC-8	.75	2.25	1,000	105	2900
-19	1958	Quartzline® Aircraft <sup>(114)*</sup>	28	150W	250 <sup>(2)</sup>	Tab	CC-8	.75	2.25	300	105	3100
-20	1959	Quartzline® Aircraft <sup>(114)*</sup>	28	150W	240 <sup>(2)</sup>	Tab	CC-8 <sup>(131)</sup>	.75	2.25	300	105	3100
-21	1987	Quartzline® Aircraft <sup>(114)*</sup>	28	150W	240 <sup>(2)</sup>	D.C. Bayonet	CC-6	1.18	2.44	700 <sup>(75)</sup>	—	—
-22	1986	Quartzline® Aircraft <sup>(114)*</sup>	28	250W	600 <sup>(2)</sup>	Wire Terminal	CC-6	1.03	2.0	100 <sup>(75)</sup>	—	—
-23	1945	Quartzline® Marine <sup>(114)*</sup>	32	200W	360 <sup>(2)</sup>	Two Pin	CC-6	1.31	2.25	200	109	—

\*See CAUTION notice contained in this footnote.

\*The filament will generate 43 mscp in a clear bulb.

See FOOTNOTES, pages 37-39

## Fog and Cornering Lamps

General Electric announces two new POWER-PLUS™ Halogen-Cycle automotive lamps for fog and for cornering, the GE880 and GE881 prefocus based lamps. They provide unique features that can mate directly to lighting devices without loss of precision usually associated with sockets.

These new POWER-PLUS™ lamps produce up to 30% more light than conventional incandescent lamps of the same wattage, and feature shielded bulbs to reduce uncontrolled glare. General Electric's selective use of construction materials for these lamps enhances corrosion resistance and reduces water and dust leakage into lighting systems. Note that Footnote 131 and contained CAUTION apply. Contact your local GE Lamp Sales Representative for additional information.

## Halogen-cycle lamps can be used in a variety of applications.

Aircraft Safety Equipment  
Card Readers  
Construction Equipment  
Detection Devices  
Diving Lights  
Emergency Building Lights  
Farm Equipment  
Fiber Optics (lamps with lenses)  
Film Exposure

Flashing Beacons  
Flashlights  
Floodlights  
Hand Lanterns  
High-Intensity Lights  
Infrared Sources  
Inspection Devices  
Medical Equipment  
Microscope Illuminators

Off-Road Vehicles  
Optical Devices  
Photocell Controls  
Rotating Beacons  
Scientific Instruments  
Spotlights  
Tape Readers  
Ultraviolet Sources  
Warning Signs

# Design Features—Miniature & Subminiature Lamps

Design factors—such as the lamp socket, limitations of housing space, power source, light output, wattage, life, ambient temperature, and the possibility of shocks and vibration—should be considered carefully when selecting lamps.

## LIGHT QUANTITY AND QUALITY

Where an object or surface is to be illuminated, the quantity of light required depends upon the size of the object, the brightness desired, the contrast with its background, and the time available for seeing.

Where light must be projected, either a separate reflector and lamp or a reflectorized lamp may be required. Consideration should be given to beam candlepower and beam spread.

The spectral quality of color of light can be modified by external filters or coatings applied to the bulb.

## LIGHT, LIFE, AND VOLTAGE

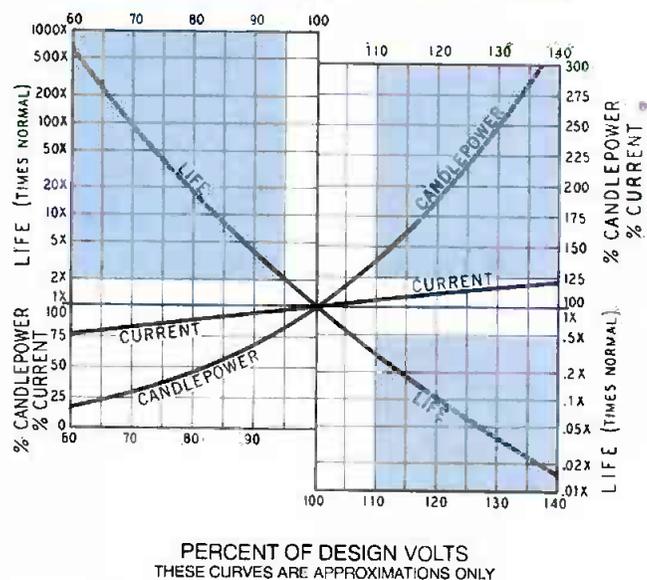
For any particular lamp, the light output and life depend upon the voltage at which a lamp is operated. For instance, as approximations, the light output varies as the 3.6 power of the voltage and the life varies inversely as the 12th power of the voltage. Chart I illustrates the effect of overvoltage or undervoltage applied to a lamp on its current, life, and light (candlepower) output. Indicated values (except for long-life lamps) are reasonably valid, between 95% and 110% rated volts. Beyond that, indicated characteristics may not be realized because of the increasing influence of factors which cannot be incorporated into the chart.

The chart applies only to D.C. or sine-wave A.C. current, considering the applicable footnotes pertaining to published life. The data, particularly for lamp life, do not apply accurately for lamp operation on half-wave rectified voltage, semiconductor dimming devices, and constant-current operation.

## MECHANICAL STRENGTH

Low-voltage, high-current incandescent lamps are best suited for operation under conditions of shocks and vibration. Other factors affecting strength are the resonant frequency of lead wires and filament form. Most radio panel lamps of 6.3 volts and under incorporate mounts whose resonant frequency has been synchronized with that of the coiled filament to withstand shocks and vibration. Where rough service conditions are encountered, screw base lamps should be avoided since they may loosen in their sockets. Higher voltage lamps of similar light output and life have longer, thinner filaments which are more prone to shock and vibration failures.

CHART I  
TYPICAL CHARACTERISTIC CURVES



NOTE: Calculations of characteristics shown in Chart I are approximate only between 95% and 110% of rated voltage for lamp types with 5,000 hours life or less. Certain lamp types will vary widely from calculated values. This chart will not apply to lamps with lives in excess of 5,000 hours or to halogen-cycle lamps. Consult your local GE Lamp Representative for application information.

## POWER SOURCES

In battery applications, the mean effective voltage delivered is generally higher than the average volts. The mean effective voltage, therefore, should be the design voltage of the lamp. Design voltages for flashlight lamps have been determined by extensive tests.

Filament lamp ratings are predicated on operation at a constant voltage. When operated from a higher-than-rated voltage in series with a dropping resistor, the effect is the same as operating at a constant current. Since the lamp resistance changes with operating life, the voltage drop across the lamp will increase; hence, the lamp life experienced will generally be about one half that resulting from constant-voltage operation.

When selecting a transformer or resistor, consideration should be given to lamp ampere tolerances and the regulation characteristics of the component.

Since integrated circuit applications are operated on D.C. and, in general, constant current, lamps used with them offer less life than applications where A.C. voltage and higher current can be tolerated. This is because the D.C. notching phenomenon occurs in greater percentage on low-current lamps, and the life is approximately 50% under constant current than that under controlled voltage. This half-life on constant current occurs because the filament is evaporating and becoming smaller as the lamp is operating, gradually

# Design Features—Miniature & Subminiature Lamps

increasing in resistance and requiring a rise in voltage to maintain a constant current value. This, in turn, increases the wattage and the filament temperature, causing an increase in the efficiency of the lamp.

## SPACE

Tolerances of bulb diameters, light center lengths, and overall lengths should be carefully considered by designers when specifying lamp housings. These tolerances and more-detailed drawings are available from your local GE Lamp Representative.

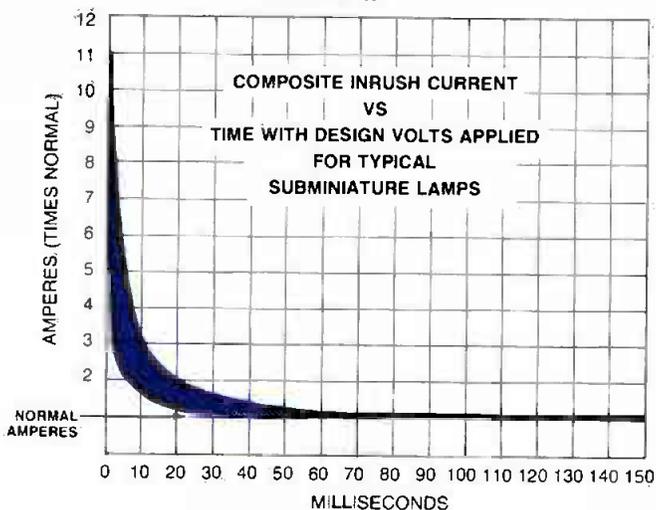
## AMBIENT TEMPERATURE

It is important to consider the lamp housing from the standpoints of radiation, absorption, and ventilation. Normal variations in ambient temperature do not affect the performance of miniature lamps. Above 175°C (350°F), the solder on conventional lamps may soften, deform, or melt, and the basing cement may loosen. The new all-glass wedge base lamps can be operated in lamp ambient temperatures of up to 230°C (450°F).

## INRUSH CURRENT

The initial current through a filament is called the inrush current. Cold resistance of a filament is generally considered to be that of room temperature, while the hot resistance depends upon the temperature of the filament (which varies with lamp size). Inrush current can be approximately 12 times as great as the normal operating current. This maximum value is seldom reached because the impedance in the circuit reduces it. However, equipment designers should take both inrush current and resistance into consideration when selecting a lamp. Chart II displays the general range of inrush current versus time after voltage is applied to a cold lamp. Inrush current can be reduced by applying a low value of pre-heat voltage.

CHART II



Tungsten filaments are more fragile at temperatures below the 250°C brittle-ductile region. This fragility can be reduced by using a keep-alive voltage or current in the off condition. A general recommendation for keep-alive requirements is 25% of the design voltage or current. This will reduce the inrush current from approximately 12 times to 4 times, depending upon the lamp type.

## INCANDESCENCE AND NIGRESCENCE

The rate of rise and decay time depends upon the mass of the filament to be heated. In general, the incandescence (rise time) to 90% brightness is about 100 to 300 milliseconds, and the nigrescence (decay time) is about 40 to 100 milliseconds. These values vary with each lamp type. The times are directly related to the lamp current; therefore, low-current lamps have the fastest response times.

## CLEANED AND SOLDERABLE LEADS

Most General Electric wire terminal lamps are cleaned at the factory and furnished in an easily solderable state. This treatment makes the lamps easily solderable for a period of at least 6 months after receipt of product.

Lead wires used in the manufacture of most lamps have a borate coating to ensure a good metal-to-glass seal (where the lead wires enter the bulb). This coating interferes with soldering and must be removed where soldering is necessary. In applications where wire terminal lamps are connected by crimping or pressure contact, the cleaned and easily solderable leads eliminate the possibility of a poor connection. For more information, contact your local GE Lamp Representative.

## FLASHING AND PULSING

Incandescent lamps have been used successfully in flashing and pulsing circuits. However, this may affect lamp life in some cases. For more information, contact your local GE Lamp Representative.

## REDUNDANT SYSTEM PHILOSOPHY

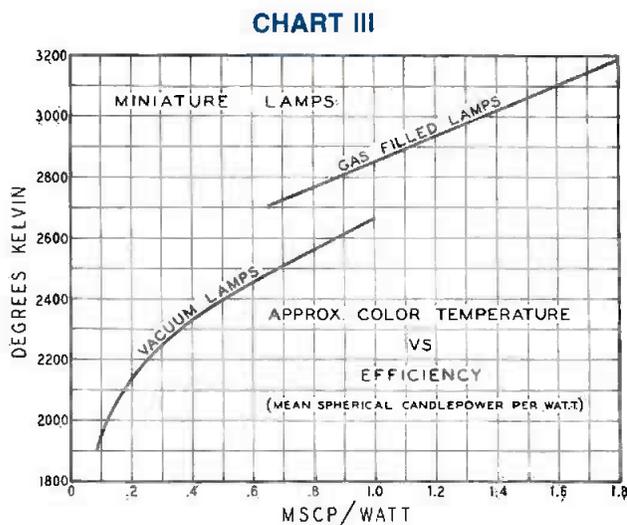
Two-filament lamps with filaments connected in parallel for additional reliability are not new. Experience has shown, however, that in many cases, the second filament has failed by the time it is needed. Thus, these lamps have never become very popular.

# Design Features—Miniature & Subminiature Lamps

A more reliable system would be to use two or more lamps operating at the same time. Since they are physically separated from each other, it is easy to see when one has failed. This lamp can be replaced immediately, prior to the failure of the second lamp.

## COLOR TEMPERATURE

The radiation from tungsten filaments used in General Electric lamps is similar to that from a "black body" at specific temperatures. This can be determined approximately from Chart III. Use the published lamp ratings (or estimated derated values) in this catalog. The catalog indicates whether a lamp is vacuum or gas-filled.



## LAMP LIFE

Rated average life is that obtained in closely controlled laboratory testing of lamps on 60 Hertz Alternating Current at their design voltage. Certain lamps are tested with Direct Current and are footnoted accordingly. Very long life lamps are generally rated on the basis of extrapolated laboratory test data. Service conditions such as shocks, vibration, voltage fluctuations, temperature, etc., may contribute to a shorter average service life.

Ordinarily, for still-rack operation, normal tungsten filament evaporation is the basic force or mechanism controlling incandescent lamp life. Where normal filament evaporation is the dominant failure mechanism, lamps should reach their design-predicted lifetimes.

In recent years, another filament mechanism has been identified which may reduce life to one-half or much less of its design-predicted value. It is commonly referred to as "filament notching." Notching is the appearance of step-like or sawtooth irregularities, appearing on all or part of the tungsten filament surface, after some burning.

These notches reduce the filament wire diameter at various points. In some cases, especially in fine-wire diameter lamps, the notching is so severe as to almost penetrate the entire wire diameter. Thus accelerated spot evaporation due to this notching (as well as reduced filament strength) now becomes the dominant mechanism for influencing lamp life. Because of its abnormal evaporation and/or reduced strength effects, lamp lifetimes due to notching are substantially lessened.

Notching has been due to at least three factors:

1. Low-temperature filament operation, less than that for significant normal tungsten evaporation. (Long-life lamp designs, such as 10,000-, 25,000-, 50,000-, and 100,000-hour designs. This does not apply to filament temperatures below 1600°C.)
2. Small filament-wire sizes, less than one mil (.001") diameter in many cases, typical of low-amperage lamps.
3. Increased use of D.C. voltage operation (generally resulting from advances in solid state technology).

Subminiature lamps, those with bulb sizes of T-2 and below, have been the most susceptible candidates for filament notching. By their very nature they have small diameter filaments, are often soldered into place in their applications to save space, and are operated at low filament temperatures in an effort to prolong life. Lamps listed in this catalog with "Rated Average Lab Life" footnotes 38, 42, 43, 79, and 116 may be susceptible to notching. Since notching is very difficult to predict, it is recommended that lamps susceptible to this phenomenon be easily replaceable in their applications.

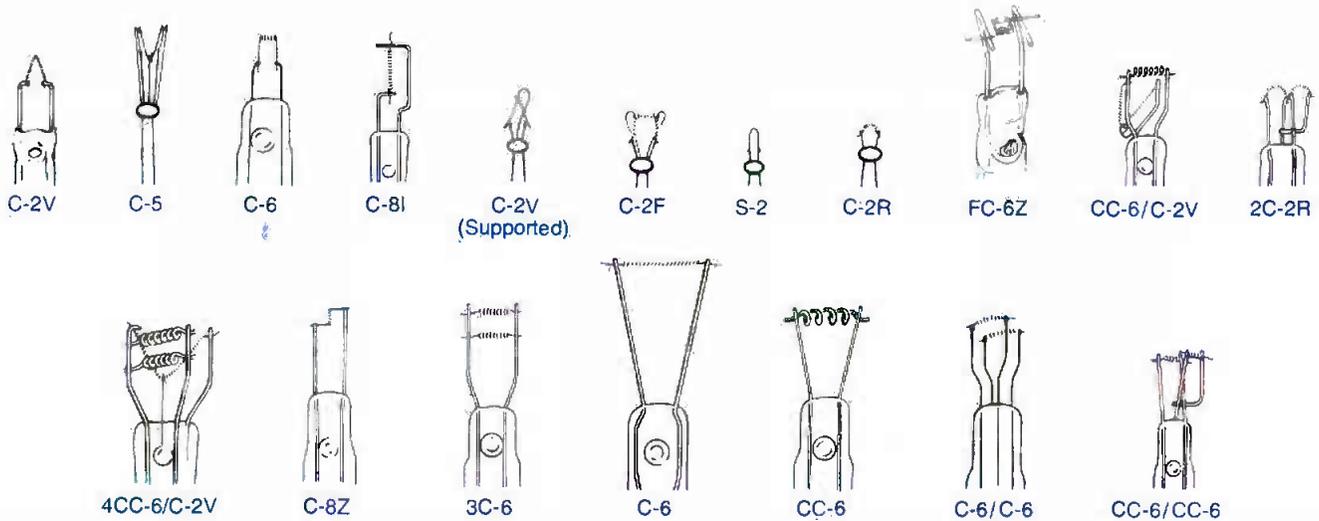


An example of filament notching.

# Miniature and Subminiature Filaments and Bases

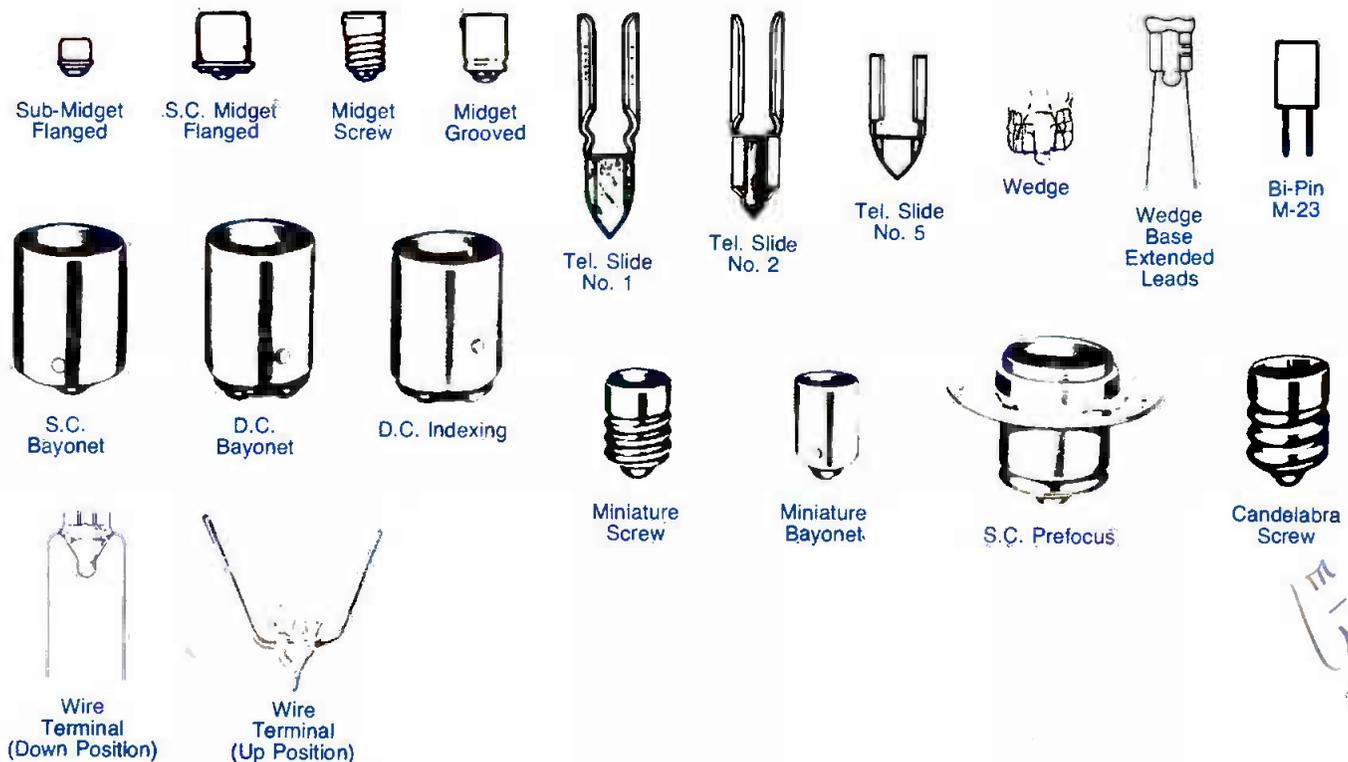
## Filaments

Filaments for miniature and subminiature lamps may be a straight wire, a coil, or a coiled coil (indicated by the letters "S", "C", and "CC" respectively). Coiling the filament wire effectively shortens the filament length so that smaller bulbs can be used. In addition, in gas-filled lamps, coiling the wire reduces thermal losses and increases efficiency. Tungsten is almost universally used as lamp filament material because of its high melting point at incandescence. The number following the coil identification letter(s) denotes the arrangement of the filament on the supports.



## Bases

Bases provide electrical contact to the lamp and, in most cases, also support the lamp in the fixture. For miniature and subminiature lamps, bayonet or wedge base types are generally preferred over screw types when vibration is present. In addition, wedge bases reduce socket size and complexity. (For complete information about the benefits of all-glass wedge base lamps, refer to page 10 of this catalog.) Flanged or collared types are usually associated with requirements for filament location.



# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## B-3½ BULB 7/16" (11 mm) DIAMETER<sup>(2)</sup>

20-1	PR4	Flashlight—2C Cells	2.33	.27A	.40 <sup>(2)</sup>	S.C. Miniature Flanged	B	C-2R	.25	1.25	10 <sup>(116)</sup>	1
-2	PR2	Flashlight—2D Cells	2.38	.50A	.80 <sup>(2)</sup>	S.C. Miniature Flanged	B	C-2R	.25	1.25	15 <sup>(116)</sup>	1
-3	PR6	Flashlight—2D Industrial Cells	2.47	.30A	.45 <sup>(2)</sup>	S.C. Miniature Flanged	B	C-2R	.25	1.25	30 <sup>(116)</sup>	1
-4	PR9	Flashlight—2D Cells	2.7	.15A	.25 <sup>(2)</sup>	S.C. Miniature Flanged	B	C-2R	.25	1.25	45 <sup>(116)</sup>	1
-5	395X	Flashlight—2D Cells Special Service	3.0	.07A	.15 <sup>(2)</sup>	S.C. Miniature Flanged	B	S-2	.25	1.25	50 <sup>(116)</sup>	1
-6	PR3	Flashlight—3D Cells	3.57	.50A	1.50 <sup>(2)</sup>	S.C. Miniature Flanged	B	C-2R	.25	1.25	15 <sup>(116)</sup>	1
-7	PR7	Flashlight—3D Industrial Cells	3.7	.30A	.90 <sup>(2)</sup>	S.C. Miniature Flanged	B	C-2R	.25	1.25	30 <sup>(116)</sup>	1
-8	PR30	Flashlight—3 Ni Cad Cells	3.75	.86A	2.25 <sup>(2)</sup>	S.C. Miniature Flanged	C	C-2R	.25	1.25	40 <sup>(116)</sup>	1
-9	PR13	Hand Lantern—4F Cells	4.75	.50A	2.20 <sup>(2)</sup>	S.C. Miniature Flanged	C	C-2R	.25	1.25	15 <sup>(116)</sup>	1
-10	PR15	Hand Lantern—8F Cells in series parallel	4.82	.50A	1.9 <sup>(2)</sup>	S.C. Miniature Flanged	C	C-2R	.25	1.25	30 <sup>(116)</sup>	1
-11	PR12	Flashlight—5D Cells	5.95	.50A	3.10 <sup>(2)</sup>	S.C. Miniature Flanged	C	C-2R	.25	1.25	15 <sup>(116)</sup>	1
-12	PR18	Flashlight—6D Cells <sup>(14)</sup>	7.2	.55A	5.5 <sup>(2)</sup>	S.C. Miniature Flanged	C	C-2R	.25	1.25	3 <sup>(116)</sup>	1
-13	PR20	Flashlight—7D Cells <sup>(14)</sup>	8.63	.50A	5.0 <sup>(2)</sup>	S.C. Miniature Flanged	C	C-2R	.25	1.25	15 <sup>(116)</sup>	1

## B-6 BULB 3/4" (19mm) DIAMETER<sup>(2)</sup>

-14	1317	Aircraft Emergency Lighting (Krypton Gas) <sup>(144)</sup>	6.0	.51A	3.40 <sup>(2)</sup>	S.C. Bayonet	C	C-6	1.12	1.75	15 <sup>(116)</sup>	2
-15	209	Special Service	6.5	1.78A	15	S.C. Bayonet	C	C-6	1.06	1.75	100 <sup>(116)</sup>	2
-16	210	Instrument	6.5	1.78A	15	D.C. Bayonet	C	C-6	1.06	1.75	100	2
-17	1003	Auto Interior	12.8	.94A	15	S.C. Bayonet	C	C-6	1.06	1.75	200	2
-18	1004	Auto Interior and Marine	12.8	.94A	15	D.C. Bayonet	C	C-6	1.06	1.75	200	3
-19	105	Auto Interior—Heavy Duty	12.8	1.07A	12	S.C. Bayonet	C	C-6	1.06	1.75	500	2
-20	1309	Aircraft Interior <sup>(144)</sup>	28.0	.52A	15	S.C. Bayonet	C	2C-2R	1.06	1.75	300	2
-21	1308	Aircraft Reading Light Spiral Leads	28	.56A	16	S.C. Bayonet	C	CC-8	1.06	1.75	2,000	2

## G-3½ BULB 7/16" (11mm) DIAMETER<sup>(2)</sup>

-22	131	Bicycle—1D Cell	1.3	.10A	.03 <sup>(2)</sup>	Miniature Screw	B	S-2	.72	.94	50 <sup>(116)</sup>	4
-23	458	Special Service	1.5	.20A	.12 <sup>(2)</sup>	Miniature Screw	B	S-2	.72	.94	30	4
-24	245	Flashlight—2D Cells	2.46	.50A	.90 <sup>(2)</sup>	Miniature Screw	B	C-2R	.72	.94	15 <sup>(116)</sup>	4
-25	14	Flashlight—2D Cells	2.47	.30A	.50 <sup>(2)</sup>	Miniature Screw	B	C-2R	.72	.94	15 <sup>(116)</sup>	4
-26	10	Indicator (L.C.L. measured from bottom of pins) <sup>(69)</sup>	2.5	.50A	.50 <sup>(2)</sup>	Miniature Two Pin	B	C-6	.62	.94	3,000	5
-27	352X	Special Service	3.0	.07A	.15 <sup>(2)</sup>	Miniature Screw	B	S-2	—	.94	50 <sup>(116)</sup>	4
-28	13	Flashlight—3D Cells	3.7	.30A	.98 <sup>(2)</sup>	Miniature Screw	B	C-2R	.72	.94	15 <sup>(116)</sup>	4
-29	12	Radio <sup>(69)</sup>	6.3	.15A	.35 <sup>(2)</sup>	Miniature Two Pin	B	C-6	.62	.94	5,000+ <sup>(44)</sup>	5
-30	612	Special Service <sup>(69)</sup>	6.3	.25A	.65 <sup>(2)</sup>	Miniature Two Pin	B	C-6	.66	.94	5,000+	5
-31	51	Indicator	7.5	.22A	1	Miniature Bayonet	B	C-2R	.5	.94	1,000	6
-32	1449	Toy Train	14.0	.20A	2 <sup>(2)</sup>	Miniature Screw	B	C-2V <sup>(13)</sup>	.72	.94	250	4
-33	19	Toy Train <sup>(69)</sup>	14.4	.10A	.9 <sup>(2)</sup>	Miniature Two Pin	B	C-6	.62	.94	1,000	5
-34	53	Auto and Indicator	14.4	.12A	1	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.5	.94	1,000	6
-35	53X	Auto—Heavy Duty	14.4	.12A	.75 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.5	.94	1,000	6
-36	1445	Auto (See line 38 for rating @ 18 volts)	14.4	.135A	.7 <sup>(2)</sup>	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.5	.94	2,000	6
-37	1447	Toy Train	18.0	.15A	1.5 <sup>(2)</sup>	Miniature Screw	B	C-2V <sup>(13)</sup>	.72	.94	250	4
-38	1445	Toy Train	18.0	.15A	1.5 <sup>(2)</sup>	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.5	.94	250	6
-39	1450	Indicator	24.0	.035A	.23 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.5	.94	3,000	6
-40	265	Indicator	28.0	.08A	.75 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.5	.94	5,000	6
-41	356	Aircraft <sup>(14)</sup>	28.0	.17A	3.5 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.5	.94	500	6

## G-4½ BULB 9/16" (14 mm) DIAMETER<sup>(2)</sup>

-42	406	Toy, Flasher Lamp—2 D Cells <sup>(70)</sup>	2.6	.30A	.43 <sup>(2)</sup>	Miniature Screw	B	C-2R	.88	1.07	50 <sup>(3)(116)</sup>	8
-43	116	Flashlight	2.65	.41A	.8 <sup>(2)</sup>	Miniature Screw	B	C-2R	.72	1.07	15	8
-44	407	Hand Lantern, Flasher Lamp—4 F Cells <sup>(70)</sup>	4.9	.30A	1.2 <sup>(2)</sup>	Miniature Screw	B	C-2R	.81	1.07	50 <sup>(3)(116)</sup>	8
-45	27	Hand Lantern—4 F Cells	4.9	.30A	1.4 <sup>(2)</sup>	Miniature Screw	B	C-2R	.72	1.07	30 <sup>(116)</sup>	8
-46	425	Hand Lantern—4 F Cells	5.0	.50A	2.3 <sup>(2)</sup>	Miniature Screw	C	C-2R	.72	1.07	15 <sup>(116)</sup>	8
-47	502	Hand Lantern—4 F Cells	5.1	.15A	.6 <sup>(2)</sup>	Miniature Screw	B	C-2R	.72	1.07	100 <sup>(116)</sup>	8
-48	503	Hand Lantern—4 F Cells	5.1	.15A	.6 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.5	1.07	100 <sup>(116)</sup>	9
-49	605	Flashlight—5 D Cells	6.15	.50A	3.4 <sup>(2)</sup>	Miniature Screw	C	C-2R	.72	1.07	15 <sup>(116)</sup>	8
-50	455	Indicator, Flasher Lamp <sup>(70)</sup>	6.5	.50A	1.9 <sup>(2)</sup>	Miniature Bayonet	C	C-2R	.56	1.07	500 <sup>(3)</sup>	9
-51	15	Indicator <sup>(69)</sup>	7.0	.40A	2 <sup>(2)</sup>	Miniature Two Pin	C	C-6	.69	1.07	500	10
-52	55	Instrument	7.0	.41A	2 <sup>(2)</sup>	Miniature Bayonet	C	C-2R	.56	1.07	500	9

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./ C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## G-4½ BULB ⅜" (14mm) DIAMETER<sup>(2)</sup> (continued)

22-1	57	Auto and Instrument	14.0	.24A	2	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.56	1.07	500	9
-2	57X	Auto and Instrument	14.0	.24A	2	Miniature Bayonet	B	C-2F	.56	1.07	500	9
-3	258	Toy Train, Flasher	14.0	.27A	1.6	Miniature Screw	C	C-2R	.81	1.07	500 <sup>(3)</sup>	8
-4	257	Auto and Toy Train, Flasher Lamp <sup>(70)</sup>	14.0	.27A	1.6	Miniature Bayonet	C	C-2R	.56 <sup>(147)</sup>	1.07	500 <sup>(3)</sup>	9
-5	1895	Auto, Truck Marker—Heavy Duty	14.0	.27A	2	Miniature Bayonet	B	C-2F	.56	1.07	2,000	9
-6	1895R	Indicator—Outside Coated Red <sup>(120)</sup>	14.0	.27A	—	Miniature Bayonet	B	C-2F	—	1.07	2,000	9
-7	293	Auto and Radio—Heavy Duty	14.0	.33A	2	Miniature Bayonet	B	C-2F	.56	1.07	7,500	9
-8	456	Instrument	28.0	.17A	2	Miniature Bayonet	B	C-2F	.56	1.07	5,000	9

## G-5 BULB ⅝" (16mm) DIAMETER<sup>(2)</sup>

-9	1315	Aircraft Emergency Lighting (Krypton Gas)	2.5	1.0A	1.75 <sup>(2)</sup>	S.C. Bayonet	C	C-6	.69	1.25	20 <sup>(116)</sup>	11
-10	1464	Coin Machine	22.0	.25A	3.8 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	250	12
-11	301	Aircraft	28.0	.17A	3	S.C. Bayonet	B	C-2F	.69	1.25	500	11
-12	302	Aircraft	28.0	.17A	3	D.C. Bayonet	B	C-2F	.69	1.25	500	13

## G-6 BULB ¾" (19mm) DIAMETER<sup>(2)</sup>

-13	157	Medical <sup>(8)</sup>	5.8	1.10A	8.1 <sup>(2)</sup>	Miniature Screw	C	C-2R	1.0 <sup>(127)</sup>	1.22	50	15
-14	81	Auto, Aircraft, and Coin Machine	6.5	1.02A	6	S.C. Bayonet	C	C-2R	.75	1.44	500	16
-15	82	Auto and Marine	6.5	1.02A	6	D.C. Bayonet	C	C-2R	.75	1.44	500	17
-16	63	Coin Machine	7.0	.63A	3	S.C. Bayonet	C	C-2R	.75	1.44	1,000	16
-17	64	Aircraft and Marine	7.0	.63A	3	D.C. Bayonet	C	C-2R	.75	1.44	1,000	17
-18	89	Auto	13.0	.58A	6	S.C. Bayonet	C	C-2R	.75	1.44	750	16
-19	90	Auto and Marine	13.0	.58A	6	D.C. Bayonet	C	C-2R	.75	1.44	750	17
-20	R19/5	Auto—European (ECE)	13.5	.37A	4	S.C. Bayonet	C	C-2R	19.0mm	37.5mm	400	—
-21	67	Auto	13.5	.59A	4	S.C. Bayonet	C	C-2R	.81	1.44	5,000 + <sup>(4)</sup>	16
-22	68	Auto and Marine	13.5	.59A	4	D.C. Bayonet	C	C-2R	.81	1.44	5,000 + <sup>(4)</sup>	17
-23	1155	Auto, Truck Marker—Heavy Duty	13.5	.59A	4	S.C. Bayonet	C	2C-2R	.81	1.44	5,000 + <sup>(4)</sup>	16
-24	97	Auto—Heavy Duty	13.5	.69A	4	S.C. Bayonet	C	C-2V <sup>(13)</sup>	.81	1.44	5,000 + <sup>(4)</sup>	16
-25	97A	Auto, Sidemarker—Outside Translucent Amber (yellow) Coating—Heavy Duty	13.5	.69A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	1.44	5,000 + <sup>(4)</sup>	16
-26	R19/10	Auto—European (ECE)	13.5	.74A	9.94	S.C. Bayonet	C	C-2R	19.0mm	37.5mm	400	—
-27	631	Auto—Two identical filaments in series—Heavy Duty	14	.63A	6	S.C. Bayonet	C	2C-2R	.75	1.44	1,000	16
-28	509K	Indicator <sup>(72)*</sup>	24	.18A	2.8 <sup>(2)</sup>	Candelabra Screw	B	C-2F	.94	1.38	1,000	18
-29	1251	Instrument—Two identical supported filaments in series	28	.23A	3	S.C. Bayonet	B	2C-2V <sup>(13)</sup>	.75	1.44	2,000	16
-30	1252	Instrument—Two identical supported filaments in series	28	.23A	3	D.C. Bayonet	B	2C-2V <sup>(13)</sup>	.75	1.44	2,000	17
-31	303	Aircraft	28	.30A	6	S.C. Bayonet	B	C-2F	.75	1.44	500	16
-32	304	Aircraft	28	.30A	6	D.C. Bayonet	B	C-2F	.75	1.44	500	17
-33	623	Instrument—Two identical supported filaments in series	28	.37A	6	S.C. Bayonet	B	2C-2V <sup>(13)</sup>	.75	1.44	1,000	16
-34	624	Marine—Two identical supported filaments in series	28	.37A	6	D.C. Bayonet	B	2C-2V <sup>(13)</sup>	.75	1.44	1,000	17
-35	1224	Marine	34 <sup>(147)</sup>	.16A	3.8 <sup>(2)</sup>	D.C. Bayonet	B	C-2F	.69	1.44	500	17

## G-6½ BULB 2⅞" (52mm) DIAMETER<sup>(2)</sup> Burning position—base down to horizontal, except as noted.

-36	1240	Special Service <sup>(73)*</sup>	32.0	3.6A	250 <sup>(2)</sup>	D.C. Pl. (A)	C	CC-6	1.12	3.0	35	22
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## R-12 BULB 1½" (38 mm) DIAMETER<sup>(2)</sup>

-37	1384	Aircraft—Base half of bulb reflectorized <sup>(21)</sup>	6.0	20W	—	S.C. Bayonet	C	C-8	—	2.63	300	23
-38	1383	Auto, Reading Light—Base half of bulb reflectorized <sup>(21)</sup>	13.0	20W	—	S.C. Bayonet	C	C-8	—	2.63	300	23
-39	1388	Special Service, Telephone Trouble—Base half of bulb reflectorized, ½" white spot on bulb top <sup>(21)</sup>	24.0	20W	—	D.C. Bayonet	C	CC-8	—	2.63	500	—
-40	1385	Special Service, Reading Light—Base half of bulb reflectorized <sup>(21)</sup>	28.0	20W	—	S.C. Bayonet	C	CC-8	—	2.63	300	23

\*See CAUTION notice contained in this footnote.

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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RP-11 BULB 1 3/8" (35mm) DIAMETER<sup>(2)</sup> Burning position—base down to horizontal, except as noted.

22-1	2331	Instrument <sup>(73)*</sup>	5.9	4.66A	32			C-6/C-6			400	
			6.2	4.49A	32	D.C. Pf. (S)	C		1.18	2.25	400	27
-2	2338	Instrument—High temperature solder <sup>(73)*</sup>	5.9	4.66A	32		C	C-6/C-6			400	
			6.2	4.49A	32	D.C. Pf. (S)	C		1.18	2.25	400	27
-3	1503	Instrument <sup>(73)*</sup>	5.9	6.53A	50	S.C. Pf. (B)	C	C-2V	.88	2.25	200	27A
-4	1209	Instrument <sup>(73)*</sup>	6.1	4.1 A	32	S.C. Pf. (B)	C	C-6	.88	2.25	125	27A
-5	1133	Instrument <sup>(73)*</sup>	6.2	3.91A	32	S.C. Bayonet	C	C-2R	1.25	2.25	200	26
-6	1195	Auto—Nickel-plated base <sup>(73)*</sup>	12.5	3.00A	50	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.25	300	26
-7	1196	Auto <sup>(73)*</sup>	12.5	3.00A	50	D.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.25	300	25
-8	1047	Aircraft <sup>(73)*</sup>	26.0	2.70A	105 <sup>(2)</sup>	S.C. Bayonet	C	2CC-6	1.25	2.25	300	26
-9	1062	Special Service, Emergency Lighting <sup>(73)*</sup>	40.0	.92A	50 <sup>(2)</sup>	D.C. Bayonet	C	C-5	1.25	2.25	100	25

S-6 BULB 3/4" (19mm) DIAMETER<sup>(2)</sup>

-10	1424	Instrument, Photocell Exciter—Silver contact <sup>(6)</sup>	3.7	2.75A	11 <sup>(2)</sup>	S.C. Bayonet	C	C-6	1.12	1.81	100	28
-11	1440	Special Service	4.0	4.0 A	20		C	C-6/C-6			50	
			4.0	1.0 A	3.7	D.C. Index	C		.38	1.72	275	—
-12	1534	Aircraft <sup>(15)(69)(144)</sup>	5.0	.55A	2.0		C	C-6/C-6			50	—
			28.0	.34A	6	D.C. Index	C		1.12	1.82	1,000 <sup>(75)</sup>	—

S-8 BULB 1" (25mm) DIAMETER<sup>(2)</sup>

-13	1651	Hand Lantern—4F or 8F Cells in series parallel	5.0	.60A	3 <sup>(2)</sup>	S.C. Bayonet	C	C-2R	1.12	2.0	20 <sup>(116)</sup>	29
-14	1565	Instrument, Photoelectric scanner <sup>(7)</sup>	5.1	1.75A	4.8	S.C. Pf. (S)	C	C-81	1.0	2.0	5,000 <sup>+</sup>	31
-15	1612	Instrument (L.C.L. & A.A. tol. $\pm 3/64$ ) <sup>(7)</sup>	5.4	1.90A <sup>(147)</sup>	10 <sup>(2)</sup>	D.C. Bayonet	C	C-6	1.25	2.0	1,000	30
-16	1680	Aircraft	6.0	4.10A	32	S.C. Bayonet	C	C-6	1.25	2.0	300	29
-17	1680X	Aircraft—Solid Silver Contact	6.0	4.10A	32	S.C. Bayonet	C	C-6	1.25	2.0	300	29
-18	1096	Instrument, Microscope Illuminator <sup>(7)</sup>	6.0	4.5 A	30 <sup>(2)</sup>	D.C. Pf. (S)	C	HORIZ C-2R	1.0	2.0	500	32
-19	1468	Medical Instrument—Burning position base up to horiz. <sup>(7)</sup>	6.0	4.5 A	30 <sup>(2)</sup>	D.C. Pf. (S)	C	C-2R	1.25	2.0	500	32
-20	1468X	Medical Instrument—Burning position base up to horiz.	6.0	4.5 A	30 <sup>(2)</sup>	D.C. Pf. (S)	C	C-2R	1.25	2.0	500	32
-21	1594	Instrument, Microscope Illuminator—Burning position base down to horiz. <sup>(7)</sup>	6.0	5.0 A	36 <sup>(2)</sup>	D.C. Bayonet	C	C-6	1.25	2.0	250	30
-22	1129	Special Service	6.4	2.63A	21	S.C. Bayonet	C	C-6	1.25	2.0	200	29
-23	1154	Auto Stop, Tail, Signal	6.4	2.63A	21		C	C-6/C-6			200	
			7.0	.75A	3	D.C. Index	C		1.25	2.0	1,000	33
-24	6	Special Service, Sewing Machine	6.4	3.0 A	23 <sup>(2)</sup>	D.C. Bayonet	C	C-2R	1.25	2.0	500	30
-25	1460	Medical <sup>(7)</sup>	6.5	2.75A	23 <sup>(2)</sup>	D.C. Pf. (A)	C	C-6	1.25	2.0	100	32
-26	1460X	Microscope Illuminator—Silver contacts <sup>(7)</sup>	6.5	2.75A	23 <sup>(2)</sup>	D.C. Pf. (A)	C	C-6	1.25	2.0	100	32
-27	1493	Instrument, Microscope Illuminator (L.C.L. & A.A. tol. $\pm 3/64$ ) <sup>(7)</sup>	6.5	2.75A	23 <sup>(2)</sup>	D.C. Bayonet	C	C-6	1.12	2.0	100	30
-28	1630	Instrument, Microscope Illuminator <sup>(7)</sup>	6.5	2.75A	23 <sup>(2)</sup>	D.C. Pf. (A)	C	C-6	1.0	2.0	100	32
-29	1631X	Instrument, Colorimeter—Silver contacts <sup>(7)</sup>	6.5	2.75A	23 <sup>(2)</sup>	D.C. Pf. (A)	C	C-6	1.0	2.0	100	32
-30	1649	Instrument, Microscope Illuminator—Rect.-shaped filament <sup>(6)</sup>	6.5	2.75A	23 <sup>(2)</sup>	D.C. Pf. (A)	C	FC-6Z	1.25	2.0	100	32
-31	1619	Instrument <sup>(7)</sup>	6.7	1.90A	15	S.C. Bayonet	C	C-6	1.12	2.0	500	29
-32	88	Indicator	6.8	1.91A	15	D.C. Bayonet	C	C-6	1.12	2.0	300	30
-33	93	Auto	12.8	1.04A	15	S.C. Bayonet	C	C-6 <sup>(147)</sup>	1.12	2.0	700	29
-34	94	Auto and Marine	12.8	1.04A	15	D.C. Bayonet	C	C-6 <sup>(147)</sup>	1.12	2.0	700	30
-35	1152	Special Service <sup>(7)</sup>	12.8	1.34A	21 <sup>(2)</sup>	D.C. Bayonet	C	C-2R	1.25	2.0	500	30
-36	1176	Auto Stop, Tail, Signal	12.8	1.34A	21		C	C-6/C-6			300	
			14.0	.59A	6	D.C. Bayonet	C		1.25	2.0	1,500	30
-37	1141	Auto	12.8	1.44A	21	S.C. Bayonet	C	C-6	1.25	2.0	1,000	29
-38	1142	Auto	12.8	1.44A	21	D.C. Bayonet	C	C-6	1.25	2.0	1,000	30
-39	1777	Aircraft Tail Light	12.8	1.52A	26 <sup>(2)</sup>	S.C. Bayonet	C	C-2R	1.12	2.0	400	29
-40	1034	Auto Stop, Tail, Signal	12.8	1.80A	32		C	C-6/C-6			200	
			14.0	.59A	3	D.C. Index	C		1.25	2.0	5,000 <sup>+</sup>	33
-41	1073	Auto Signal	12.8	1.80A	32	S.C. Bayonet	C	C-6	1.25	2.0	200	29
-42	1076	Auto	12.8	1.80A	32	D.C. Bayonet	C	C-6	1.25	2.0	200	30

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./ C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
23-1	2057	Auto Stop, Signal	12.8 14.0	2.1A .48A	32 2	D.C. Index	C	C-6/C-6	1.25	2.0	1,200 5,000	33
-2	2057NA	Auto Signal, Park-Natural amber (yellow)-Heavy Duty	12.8 14.0	2.1A .48A	24 1.5	D.C. Index	C	C-6/C-6	1.25	2.0	1,200 5,000	33
-3	2058U	Auto/Truck Stop, Signal	12.8 14.0	2.10A .48A	32 2	Wire Terminal <sup>(113)</sup>	C	C-6/C-6	—	1.81	1,200 1,500	—
-4	1157	Auto/Truck Stop, Signal—Heavy Duty	12.8 14.0	2.10A .59A	32 3	D.C. Index	C	C-6/C-6	1.25	2.0	1,200 5,000+	33
-5	1157A	Auto Signal, Park <sup>(132)</sup> —Outside translucent amber (yellow) coating—Heavy Duty—Not rec. for new apps. <sup>(132)</sup>	12.8 14.0	2.10A .59A	—	D.C. Index	C	C-6/C-6	—	2.0	1,200 5,000+	33
-6	1157NA	Auto Signal, Park—Natural amber (yellow)—Heavy Duty	12.8 14.0	2.10A .59A	24 2.2	D.C. Index	C	C-6/C-6	1.25	2.0	1,200 5,000+	33
-7	2242	Auto/Truck Stop, Signal—Heavy Duty	12.8 14.0	2.10A .59A	32 3	Wire Terminal <sup>(113)</sup>	C	C-6/C-6	—	1.81	1,200 5,000+	—
-8	1156	Auto/Truck Signal—Heavy Duty	12.8	2.10A	32	S.C. Bayonet	C	C-6	1.25	2.0	1,200	29
-9	198	Truck Stop, Signal—Heavy Duty <sup>(110)</sup>	12.8 14.0	2.25A <sup>(147)</sup> .59A	32 3	D.C. Index	C	C-6/C-6	1.25	2.0	1,200 5,000+	33
-10	199	Truck Signal—Heavy Duty <sup>(110)</sup>	12.8	2.25A	32	S.C. Bayonet	C	C-6	1.25	2.0	1,200	29
-11	P25-1	Auto—European (ECE)	13.5	1.86A	36.6	S.C. Bayonet	C	C-6	31.8mm	52.5mm	250	—
-12	P25-2	Auto Stop, Signal—European (ECE)	13.5	1.86A .44A	35 2.78	D.C. Index	C	C-6/C-6	31.8mm	52.5mm	250 1,000	—
-13	1634	Instrument, Microscope Illuminator—Burn base up to horiz. <sup>(8)</sup>	20.0	1.0A	24 <sup>(2)</sup>	D.C. Pf. (A)	C	CC-6	1.25	2.0	200	32
-14	305	Aircraft	28.0	.51A	15	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	300	29
-15	305IF	Aircraft—Inside frosted	28.0	.51A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.0	300	29
-16	306	Aircraft	28.0	.51A	15	D.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	300	30
-17	705	Aircraft	28.0	.51A	15	S.C. Bayonet	C	CC-6	1.12	2.0	900	29
-18	1591	Auto	28.0	.61A	15	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	1,000	29
-19	1591IF	Aircraft—Inside frosted	28.0	.61A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.0	1,000	29
-20	1691	Aircraft—2 identical filaments in series	28.0	.61A	15	S.C. Bayonet	C	2C-2R	1.12	2.0	1,000	29
-21	1691IF	Aircraft—Inside frosted—2 identical filaments in series	28.0	.61A	—	S.C. Bayonet	C	2C-2R	—	2.0	1,000	29
-22	1692	Marine—2 identical filaments in series	28.0	.61A	15	D.C. Bayonet	C	2C-2R	1.12	2.0	1,000	30
-23	2232	Aircraft—Spiral lead	28.0	.643A	18	S.C. Bayonet	C	CC-8	1.19	2.0	2,000	29
-24	2232SB	Aircraft—Spiral lead Top of bulb reflectorized	28.0	.643A	—	S.C. Bayonet	C	CC-8	1.19	2.0	2,000	29
-25	307	Aircraft	28.0	.67A	21	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	300	29
-26	307IF	Aircraft—Inside frosted	28.0	.67A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.0	300	29
-27	307R	Aircraft—Outside coated red (Silicate)	28.0	.67A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.0	300	29
-28	307SB	Aircraft—Reflectorized bowl	28.0	.67A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	300	29
-29	308	Aircraft	28.0	.67A	21	D.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	300	30
-30	308IF	Aircraft—Inside frosted	28.0	.67A	—	D.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.0	300	30
-31	1203	Special Service	28.0	.71A	21	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.0	400	29
-32	2233	Aircraft—Spiral Lead	28.0	.766A	21	S.C. Bayonet	C	CC-8	1.19	2.0	2,000	29
-33	1563	Military Headlamp—Blackout	28.0	.76A	21	S.C. Bayonet	C	CC-6	1.12	2.0	1,000	29
-34	1665	Aircraft	28.0	.80A	21	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	1,000	29
-35	1665IF	Aircraft—Inside Frosted	28.0	.80A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.0	1,000	29
-36	315	Aircraft	28.0	.90A	32	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	300	29
-37	1580X	Instrument <sup>(7)</sup>	28.0	.93A	32 <sup>(2)</sup>	S.C. Bayonet	C	CC-6	1.25	2.0	400	29
-38	1662	Aircraft—C-2V filament inverted Burn base down to horizontal <sup>(15)(33)(144)</sup>	28.0	.93A .34A	32 6	D.C. Index	C	CC-6/ C-2V <sup>(13)</sup>	1.25	2.0	400 1,000	33
-39	1683	Aircraft—2 identical filaments in series	28.0	1.02A	32	S.C. Bayonet	C	2C-6	1.25	2.0	500	29
-40	1638	Marine—2 identical filaments in series	28.0	1.02A	32	D.C. Bayonet	C	2C-6	1.25	2.0	500	30
-41	1229	Special Service, Emergency Lighting	40.0	.38A	15 <sup>(2)</sup>	D.C. Bayonet	C	C-2V <sup>(13)</sup>	1.12	2.0	400	30

\* See CAUTION notice contained in this footnote.

See FOOTNOTES, pages 37-39

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## S-11 BULB 1 3/8" (35mm) DIAMETER<sup>(2)</sup>

24-1	1759	Instrument, Colorimeter <sup>(7)</sup>	6.1	4.1A	32 <sup>(2)</sup>	S.C. Pf (B)	C	C-8Z	.88	2.38	125	34
-2	1763	Instrument, Colorimeter <sup>(7)</sup>	6.1	4.1A	32 <sup>(2)</sup>	S.C. Pf. (B)	C	C-6	.88	2.38	125	34
-3	1561	Instrument, Colorimeter <sup>(7)</sup>	6.3	4.0A	24 <sup>(2)</sup>	S.C. Pf. (B)	C	C-8Z	.88	2.38	1,500	34
-4	1731	Instrument—Silver Contact—Burn base down to horizontal <sup>(7)</sup>	6.3	6.6A	47 <sup>(2)</sup>	S.C. Pf (B)	C	C-6	.88	2.38	1,000	34
-5	1726X	Aircraft Gunsight—Bulb reflectorized—1/32" clear spot on back <sup>(135)*</sup>	12.5	3.0A	—	D.C. Bayonet	C	3C-6	1.28	2.38	300	36
-6	309	Aircraft	28.0	.9A	32	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.38	300	35
-7	309IF	Aircraft—Inside frosted	28.0	.9A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.38	300	35
-8	310	Aircraft	28.0	.9A	32	D.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.38	300	36
-9	311	Aircraft	28.0	1.29A	50	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.38	300	35
-10	311R	Aircraft—Outside coated red (Silicate)	28.0	1.29A	—	S.C. Bayonet	C	C-2V <sup>(13)</sup>	—	2.38	300	35
-11	3011	Aircraft	28.0	1.29A	44 <sup>(2)</sup>	S.C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.38	1,000	35

## T-1 BULB 1/8" (3mm) DIAMETER<sup>(2)</sup>

-12	680	Aircraft—1" minimum tinned leads	5.0	.06A	.03 ± 25%	Wire Terminal <sup>(122)</sup>	B	C-2R	—	.25	60,000 <sup>(75)(79)</sup>	37
-13	683	Aircraft—1" minimum tinned leads	5.0	.06A	.05 ± 25%	Wire Terminal <sup>(122)</sup>	B	C-2R	—	.25	40,000 <sup>(79)</sup>	38
-14	683AS15	Aircraft—Aged and selected ± 15% C.P.—1" tinned leads	5.0	.06A	.05 ± 15%	Wire Terminal <sup>(122)</sup>	B	C-2R	—	.25	40,000 <sup>(79)</sup>	37
-15	685	Aircraft	5.0	.06A	.05 ± 25%	Sub-Midget Flanged	B	C-2R	.19	.38	40,000 <sup>(79)</sup>	38
-16	715	Aircraft—1" minimum tinned leads	5.0	.115A	.15 ± 25%	Wire Terminal <sup>(122)</sup>	B	C-2R	—	.25	40,000 <sup>(75)(79)</sup>	37
-17	718	Aircraft	5.0	.115A	.15 ± 25%	Sub-Midget Flanged	B	C-2R	.19	.38	40,000 <sup>(75)(79)</sup>	38
-18	718AS15	Aircraft—Aged and selected ± 15% C.P.	5.0	.115A	.15 ± 15%	Sub-Midget Flanged	B	C-2R	.19	.38	40,000 <sup>(75)(79)</sup>	38

## T-1 1/4 BULB 5/32" (4mm) DIAMETER<sup>(2)</sup>

-19	325	Aircraft	3.0	.19A	25 <sup>(2)</sup>	Special <sup>(45)</sup>	B	C-2R	.44	.53	350	39
-20	323	Aircraft	3.0	.19A	25 <sup>(2)</sup>	Special <sup>(52)</sup>	B	C-2R	.18	.55	350	40
-21	673	Special Service	4.5	.29A	1.05 <sup>(2)</sup>	Special <sup>(45)</sup>	B	C-2R	.44	.53	100	39
-22	583D	Indicator—Approx. 5/8" leads	5.0	.06A	.05 ± 25%	Wire Terminal <sup>(74)</sup>	B	C-2R	—	.44	25,000 <sup>(38)(79)</sup>	41

## T-1 1/2 BULB 3/16" (4.7mm) DIAMETER<sup>(2)</sup>

-23	2600	Instrument—Halogen Cycle <sup>(11)*</sup>	3.5	.72A	2.9	Wire Terminal <sup>(61)</sup>	C	C-6	—	.52	20 <sup>(116)</sup>	96
-24	2700	Instrument—Halogen Cycle <sup>(11)*</sup>	3.5	.72A	2.5	S.C. Midget Flanged	C	C-6	.325	.63	20 <sup>(116)</sup>	97

## TL-1 1/2 BULB 3/16" (4.7mm) DIAMETER<sup>(2)</sup>

-25	2124D <sup>(117)</sup>	Instrument—Approx. 5/8" leads—Minimum beam 1/8" diameter at 3/8" from lens end	2.5	.35A	—	Wire Terminal <sup>(122)</sup>	B	C-2R	—	.57	10,000 <sup>(116)</sup>	42
-26	252 <sup>(117)</sup>	Instrument, Lens End <sup>(53)(80)</sup>	2.5	.35A	—	S.C. Midget Flanged	B	C-2R	—	.69	10,000 <sup>(116)</sup>	44
-27	253 <sup>(117)</sup>	Instrument, Lens End <sup>(53)(80)</sup>	2.5	.35A	—	Midget Grooved	B	C-2R	—	.69	10,000 <sup>(116)</sup>	45
-28	253X <sup>(117)</sup>	Instrument, Lens End <sup>(57)(80)</sup>	2.5	.35A	—	Midget Grooved	B	C-2R	—	.69	10,000 <sup>(116)</sup>	45
-29	261 <sup>(117)</sup>	Instrument, Lens End <sup>(58)(80)</sup>	2.5	.35A	—	Midget Grooved	B	C-2R	—	.69	10,000 <sup>(116)</sup>	45
-30	8261 <sup>(117)</sup>	Instrument, Lens End <sup>(58)(80)</sup>	2.5	.35A	—	Bi-Pin M-23	B	C-2R	—	.65	10,000 <sup>(116)</sup>	46
-31	2601	Instrument—Halogen Cycle Lens End <sup>(11)*</sup>	3.5	.72A	—	Wire Terminal <sup>(61)</sup>	C	C-6	—	.52	20 <sup>(116)</sup>	95
-32	2701	Instrument—Halogen Cycle Lens End <sup>(11)*</sup>	3.5	.72A	— <sup>(140)</sup>	S.C. Midget Flanged	C	C-6	—	.63	20 <sup>(116)</sup>	98

## T-1 3/4 BULB 7/32" (5.5mm) DIAMETER<sup>(2)</sup>

-33	251	Indicator	2.47	.30A	.45 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2R	.38	.63	30 <sup>(116)</sup>	50
-34	11	Indicator	2.5	.20A	.20 <sup>(2)</sup>	Wedge <sup>(130)</sup>	B	C-2R	.40	.80	1,000 <sup>(116)</sup>	52
-35	268	Instrument	2.5	.35A	.20 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2R	.44	.63	10,000 <sup>(116)</sup>	50
-36	2169D	Instrument—Approx. 5/8" leads	2.5	.35A	.20 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2R	—	.52	10,000 <sup>(116)</sup>	49
-37	2158D	Indicator—Approx. 5/8" leads	3.0	.013A	.002-.004	Wire Terminal <sup>(74)</sup>	B	C-6	—	.52	20,000 <sup>(116)</sup>	49

24. \*See CAUTION notice contained in this footnote.

See FOOTNOTES, pages 37-39

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## T-1 $\frac{3}{4}$ BULB $\frac{7}{32}$ " (5.5mm) DIAMETER<sup>(2)</sup> (continued)

25-1	56X	Indicator	5.0	.115A	.15 <sup>(2)</sup>	Wedge <sup>(130)</sup>	B	C-2F	.40	.80	20,000 <sup>(75)(79)</sup>	52
-2	345	Indicator	6.0	.04A	.04 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2V	.38	.63	10,000 <sup>(79)</sup>	50
-3	328	Aircraft	6.0	.20A	.34 <sup>(2)(10)</sup>	S.C. Midget Flanged	B	C-2R	.38	.63	1,000	50
-4	328	Aircraft—Aged and selected										
	AS-10	$\pm 10\%$ C.P.	6.0	.20A	.34 <sup>(2)(10)</sup>	S.C. Midget Flanged	B	C-2R	.38	.63	1,000	50
-5	79	Indicator	6.0	.20A	.60 <sup>(2)</sup>	Wedge <sup>(130)</sup>	B	C-2R	.40	.80	1,000	52
-6	2180D	Indicator—Approx. $\frac{5}{8}$ " leads—White bead	6.3	.04A	.03 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2V	—	.52	20,000 <sup>(43)(79)</sup>	49
-7	84	Indicator	6.3	.04A	.03 <sup>(2)</sup>	Wedge <sup>(130)</sup>	B	C-2V	.40	.80	20,000 <sup>(79)</sup>	52
-8	2112D	Indicator—Approx. $\frac{5}{8}$ " leads—Yellow bead	6.3	.20A	.55 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2R	—	.52	10,000 <sup>(79)</sup>	49
-9	2181D	Indicator—Approx. $\frac{5}{8}$ " leads—Yellow bead	6.3	.20A	.40 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	20,000 <sup>(43)(79)</sup>	49
-10	378	Indicator	6.3	.20A	.40 <sup>(2)</sup>	Midget Screw	B	C-2F	.52	.72	20,000 <sup>(43)(79)</sup>	51
-11	381	Indicator	6.3	.20A	.40 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	20,000 <sup>(43)(79)</sup>	50
-12	86	Indicator	6.3	.20A	.40 <sup>(2)</sup>	Wedge <sup>(130)</sup>	B	C-2F	.40	.80	20,000 <sup>(79)</sup>	52
-13	1869D	Indicator—Leads $\frac{5}{8}$ " max.—Blue bead	10.0	.014A $\pm 10\%$	.006 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	50,000 <sup>(116)</sup>	49
-14	344	Indicator	10.0	.014A $\pm 10\%$	.006 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	50,000 <sup>(116)</sup>	50
-15	2174D	Instrument—Approx. 1" leads	12.0	.04A	.10 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	10,000 <sup>(79)</sup>	49
-16	394	Indicator	12.0	.04A	.10 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	10,000 <sup>(79)</sup>	50
-17	18	Indicator	14.0	.04A	.13 <sup>(2)</sup>	Wedge	B	C-2F	.40	.80	5,000 <sup>(79)</sup>	52
-18	330	Aircraft	14.0	.08A	.50 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	1,500	50
-19	336	Aircraft	14.0	.08A	.50 <sup>(2)</sup>	Midget Grooved	B	C-2F	.38	.63	1,500	54
-20	386	Indicator	14.0	.08A	.30 <sup>(2)</sup>	Midget Grooved	B	C-2F	.38	.63	40,000 <sup>(43)(79)</sup>	54
-21	382	Indicator	14.0	.08A	.30 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	40,000 <sup>(43)(79)</sup>	50
-22	73	Indicator <sup>(133)</sup>	14.0	.08A	.30 <sup>(2)</sup>	Wedge	B	C-2F	.40	.80	15,000 <sup>(79)</sup>	52
-23	73E	Indicator—Extended leads— $\frac{5}{8}$ "	14.0	.08A	.30 <sup>(2)</sup>	Wire Terminal <sup>(122)(129)</sup>	B	C-2F	—	.80	15,000 <sup>(79)</sup>	55
-24	37	Auto <sup>(133)</sup>	14.0	.09A	.50 <sup>(2)</sup>	Wedge	B	C-2F	.40	.80	2,500	52
-25	37E	Indicator—Extended leads— $\frac{5}{8}$ "	14.0	.09A	.50 <sup>(2)</sup>	Wire Terminal <sup>(122)(129)</sup>	B	C-2F	—	.80	2,500	55
-26	2162D	Indicator—Approx. 1" leads	14.0	.10A	.50 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	10,000 <sup>(79)</sup>	49
-27	74	Auto	14.0	.10A	.70 <sup>(2)</sup>	Wedge	B	C-2F	.40	.80	1,000	52
-28	70	Auto <sup>(14)(126)</sup>	14.0	.15A	1.5	Wedge	B	C-2F	.40	.80	100	52
-29	370	Indicator	18.0	.04A	.15 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	10,000 <sup>(78)</sup>	50
-30	1762D	Indicator—Min. $\frac{5}{8}$ " leads—Green bead	28.0	.04A	.34 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	4,000 <sup>(79)</sup>	49
-31	1764D	Indicator—Min. 1" leads—White bead	28.0	.04A	.34 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	4,000 <sup>(79)</sup>	49
-32	327	Aircraft	28.0	.04A	.34 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	4,000 <sup>(79)</sup>	50
-33	327	Aircraft—Aged and selected.										
	AS-15	$\pm 15\%$ C.P.	28.0	.04A	.34 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	4,000 <sup>(79)</sup>	50
-34	327R	Aircraft—Coated Red	28.0	.04A	—	S.C. Midget Flanged	B	C-2F	—	.63	4,000 <sup>(79)</sup>	50
-35	334	Aircraft	28.0	.04A	.34 <sup>(2)</sup>	Midget Grooved	B	C-2F	.38	.63	4,000 <sup>(79)</sup>	54
-36	7327	Aircraft	28.0	.04A	.34 <sup>(2)</sup>	Bi-Pin M-23	B	C-2F	.5	.61	4,000 <sup>(79)</sup>	53
-37	7378	Indicator—Pin length non-std.	28.0	.04A	.34 <sup>(2)</sup>	Bi-Pin M-23	B	C-2F	.5	.61	4,000 <sup>(79)</sup>	—
-38	335	Indicator	28.0	.04A	.34 <sup>(2)</sup>	Midget Screw	B	C-2F	.52	.72	4,000 <sup>(79)</sup>	51
-39	2187D	Indicator—Min. 1" leads—Pink bead	28.0	.04A	.30 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	.52	7,000 <sup>(42)(79)</sup>	49
-40	387	Indicator	28.0	.04A	.30 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.38	.63	7,000 <sup>(42)(79)</sup>	50
-41	388	Indicator	28.0	.04A	.30 <sup>(2)</sup>	Midget Grooved	B	C-2F	.38	.63	7,000 <sup>(42)(79)</sup>	54
-42	7387	Indicator	28.0	.04A	.30 <sup>(2)</sup>	Bi-Pin M-23	B	C-2F	.5	.61	7,000 <sup>(42)(79)</sup>	53
-43	85	Indicator	28.0	.04A	.30 <sup>(2)</sup>	Wedge	B	C-2F	.40	.80	7,000 <sup>(79)</sup>	52
-44	85E	Indicator—Extended leads	28.0	.04A	.30 <sup>(2)</sup>	Wire Terminal <sup>(122)(129)</sup>	B	C-2F	—	.80	7,000 <sup>(79)</sup>	55
-45	385 <sup>(78)</sup>	Indicator	28.0	.04A	.15 <sup>(2)</sup>	S.C. Midget Flanged	B	C-2F	.44 <sup>(147)</sup>	.81	10,000 <sup>(43)(79)</sup>	56

## TL-1 $\frac{3}{4}$ BULB $\frac{7}{32}$ " (5.5mm) DIAMETER<sup>(2)</sup>

-46	75X	Instrument—Lens End	2.5	.35A	—	Wedge <sup>(130)</sup>	B	C-2R	—	.80	10,000 <sup>(116)</sup>	48
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\*See CAUTION notice contained in this footnote.

See FOOTNOTES, pages 37-39

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Design End <sup>(6b)</sup> Foot-Candles	Atmosphere B-Vac./C-Gas	Filament Designation	Approx. Average Cold Resistance	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## T-2 BULB 1/4" (6.3 mm) DIAMETER<sup>(2)</sup>

26-1	6A1	Telephone	6.0	.12-.16 A	.40 <sup>(2)</sup>	Tel. Slide #1	1,800	B	C-2R	4.3	1.69	5,000 <sup>(79)</sup>	58
-2	6C1	Telephone— Filament tilted	6.0	.035-.045A	.04 <sup>(2)</sup>	Tel. Slide #1	100	B	C-2V	18	1.69	7,500 <sup>(79)</sup>	58
-3	10C5	Telephone— Filament Tilted	10.0	.035-.045A	.06 <sup>(2)</sup>	Tel. Slide #5	400	B	C-2V	28	.92	10,000 <sup>(79)</sup>	59
-4	12A1	Telephone	12.0	.09-.11 A	.30 <sup>(2)</sup>	Tel. Slide #1	900	B	C-2F	12	1.69	7,500 <sup>(79)</sup>	58
-5	24B1	Telephone	24.0	.035-.045A	.20 <sup>(2)</sup>	Tel. Slide #1	600	B	C-2F	62	1.69	5,000 <sup>(79)</sup>	58
-6	24D1	Telephone	24.0	.09-.11 A	.70 <sup>(2)</sup>	Tel. Slide #1	2,000	B	C-2F	22	1.69	5,000 <sup>(79)</sup>	58
-7	24E1	Telephone	24.0	.032-.038A	.20 <sup>(2)</sup>	Tel. Slide #1	450	B	C-2F	70	1.69	5,000 <sup>(79)</sup>	58
-8	24E2	Telephone	24.0	.032-.038A	.20 <sup>(2)</sup>	Tel. Slide #2	450	B	C-2F	70	1.69	5,000 <sup>(79)</sup>	60
-9	24F5	Telephone	24.0	.032-.038A	.17 <sup>(2)</sup>	Tel. Slide #5	650	B	C-2F	70	.92	5,000 <sup>(79)</sup>	59
-10	24EX	Telephone— Special Round End	24.0	.032-.038A	.20 <sup>(2)</sup>	Tel. Slide #1	350	B	C-2F	70	1.69	5,000 <sup>(79)</sup>	61
-11	24X	Special Telephone slide base with raised prick punches—round end Indicator—Approx. 7/8" leads	24.0	.032-.038A	.20 <sup>(2)</sup>	Special #2	350	B	C-2F	70	1.69	5,000 <sup>(79)</sup>	62
-12	2137D	Telephone	28.0	.035-.045A	.20 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	900	B	C-2F	70	.78	5,000 <sup>(79)</sup>	63
-13	35A1	Telephone	35.0	.035-.045A	.55 <sup>(2)</sup>	Tel. Slide #1	900	B	C-2F	76	1.69	3,000 <sup>(79)</sup>	58
-14	35A2	Telephone	35.0	.035-.045A	.55 <sup>(2)</sup>	Tel. Slide #2	900	B	C-2F	76	1.69	3,000 <sup>(79)</sup>	60
-15	48C1	Telephone	48.0	.032-.038A	.40 <sup>(2)</sup>	Tel. Slide #1	750	B	C-2F	140	1.69	5,000 <sup>(79)</sup>	58
-16	48C2	Telephone	48.0	.032-.038A	.40 <sup>(2)</sup>	Tel. Slide #2	750	B	C-2F	140	1.69	5,000 <sup>(79)</sup>	60
-17	48D1	Telephone	48.0	.017-.025A	.12 <sup>(2)</sup>	Tel. Slide #1	250	B	C-2F	265	1.69	15,000 <sup>(79)</sup>	58
-18	48D2	Telephone	48.0	.017-.025A	.12 <sup>(2)</sup>	Tel. Slide #2	250	B	C-2F	265	1.69	15,000 <sup>(79)</sup>	60
-19	55B1	Telephone	55.0	.09-.11 A	1.7 <sup>(2)</sup>	Tel. Slide #1	3,300	B	C-2F	53	1.69	7,500 <sup>(79)</sup>	58
-20	55C1	Telephone	55.0	.045-.06 A	1.1 <sup>(2)</sup>	Tel. Slide #1	2,200	B	C-2F	96	1.69	5,000 <sup>(79)</sup>	58
-21	55C2	Telephone	55.0	.045-.06 A	1.1 <sup>(2)</sup>	Tel. Slide #2	2,200	B	C-2F	96	1.69	5,000 <sup>(79)</sup>	60
-22	60A1	Telephone	60.0	.045-.055A	1.2 <sup>(2)</sup>	Tel. Slide #1	2,200	B	C-2F	102	1.69	5,000 <sup>(79)</sup>	58

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## T-2 1/4 BULB 3/32" (7.5mm) DIAMETER<sup>(2)</sup>

-23	784	Emergency Lighting— Halogen-Cycle <sup>(131)*</sup>	6.0	1.0 A	9	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	50	100
-24	785	Emergency Lighting— Halogen-Cycle <sup>(131)*</sup>	6.0	1.33A	13	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	50	100
-25	787	Instrument—Halogen-Cycle <sup>(131)*</sup>	6.0	1.67A	16	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	100	100
-26	767	Instrument—Halogen-Cycle	6.0	2.0 A	19	Miniature Bayonet	C	C-6	.56	1.13	50 <sup>(75)</sup>	—
-27	786	Emergency Lighting— Halogen-Cycle <sup>(131)*</sup>	6.0	2.0 A	19	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	50	100
-28	788	Instrument—Halogen-Cycle <sup>(131)*</sup>	6.0	3.33A	32	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	100	100
-29	774	Emergency Lighting <sup>(131)*</sup>	12	.67A	13	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	50	100
-30	783	Emergency Lighting— Halogen-Cycle <sup>(131)*</sup>	12.0	1.0 A	22	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.0	50	100

## T-2 3/4 BULB 1/32" (8.7mm) DIAMETER<sup>(2)</sup>

-31	778	Instrument—Halogen-Cycle— High temp. fixtures <sup>(131)*</sup>	6.0	3.33A	32	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.05	100	101
-32	794	Special Service— Halogen-Cycle <sup>(131)*</sup>	10.5	1.5 A	15	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.05	5,000	101
-33	773	Special Service—Halogen-Cycle	12.0	.67A	10	G-4 Two Pin <sup>(124)</sup>	C	C-6	19.5mm	30 mm	1,000 <sup>(75)</sup>	101
-34	789	Instrument—Halogen-Cycle <sup>(131)*</sup>	12.0	1.17A	22	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.05	200	101
-35	782	Special Service— Halogen-Cycle <sup>(131)*</sup>	12.0	1.66A	25	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.05	2,000	101
-36	790	Instrument—Halogen-Cycle <sup>(131)*</sup>	14.0	1.79A	42	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.05	200	101
-37	791	Instrument—Halogen-Cycle <sup>(131)*</sup>	14.0	2.50A	61	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.05	200	101
-38	792	Instrument—Halogen-Cycle <sup>(131)*</sup>	14.0	3.57A	90	G-4 Two Pin <sup>(124)</sup>	C	C-6	.77	1.14	200	101†

## TL-2 3/4 BULB 1/32" (8.7mm) DIAMETER<sup>(2)</sup>

-39	2604X	Instrument—Halogen-Cycle, Lens end <sup>(131)*</sup>	5.0	2.0 A	— <sup>(128)</sup>	All-Glass G-4 Two Pin <sup>(124)</sup>	C	C-6	—	1.18	5,000	102
-40	2605	Instrument—Halogen-Cycle, Lens end <sup>(131)*</sup>	6.0	1.67A	— <sup>(141)</sup>	All-Glass G-4 Two Pin <sup>(124)</sup>	C	C-6	—	1.18	100	102

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere 8-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## T-3 BULB 3/8" (9.5mm) DIAMETER<sup>(2)</sup>

27-1	1974	Instrument—Quartz Bulb— 3" bare leads horizontal— Halogen-Cycle <sup>(114)*</sup>	6.0	20W	10 <sup>(2)</sup>	Wire Terminal	C	C-6	.28	1.14	10,000 +	106
-2	1974D	Instrument—Quartz Bulb— 5" insulated leads down— Halogen-Cycle <sup>(114)*</sup>	6.0	20W	10 <sup>(2)</sup>	Wire Terminal	C	C-6	.28	1.14	10,000 +	106
-3	1392	Instrument—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	6.0	3.4W	10 <sup>(2)</sup>	Two Pin on Reflector	C	C-6	—	1.74	10,000	—
-4	1977	Special Service—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	8.5	7.3A/ 62W	110	Double Slide	Q	C-6	.44	1.14	50	108
-5	1962	Special Service—Quartz Bulb— 3" bare leads horizontal— Halogen-Cycle <sup>(114)*</sup>	8.5	7.3 A	110	Wire Terminal	C	C-6	.28	1.14	50	106
-6	1962B	Special Service—Quartz Bulb— 9" insulated leads horizontal— Halogen-Cycle <sup>(114)*</sup>	8.5	7.3 A	110	Wire Terminal	C	C-6	.28	1.14	50	106
-7	1962DZ	Special Service—Quartz Bulb— 12" insulated leads down— Halogen-Cycle <sup>(114)*</sup>	8.5	7.3 A	80	Wire Terminal	C	C-6	.28	1.2	150	106
-8	1962DX	Special Service—Quartz Bulb— 4" bare leads down— Halogen-Cycle <sup>(114)*</sup>	8.5	7.3 A	80 <sup>(2)</sup>	Wire Terminal	C	C-6	.29	1.14	150	106
-9	1962TX	Special Service—Quartz Bulb— 2 1/2" insulated leads horizontal— with AMP 42599-2 female slip-on terminals— Halogen-Cycle <sup>(114)*</sup>	8.5	7.3 A	110 <sup>(2)</sup>	Wire Terminal	C	C-6	.29	—	50	106
-10	1978X	Aircraft Navigation—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	10.0	10.0A/ 100 W	130 <sup>(2)</sup>	Special	C	C-8	—	2.15	2,000	111
-11	1988	Aircraft Navigation—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	10.0	10.0A/ 100W	130 <sup>(2)</sup>	Special, Wire Leads	C	C-8	—	2.15	2,000	—
-12	1975	Aircraft Gunsight—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	12.8	1.95A/ 25W	25 <sup>(2)</sup>	Double Slide	C	C-6	.44 <sup>(147)</sup>	1.17	500	108
-13	211-2	Auto	12.8	.97A	12	Miniature Cap	C	C-8	—	1.72	1,000	70
-14	561	Auto	12.8	.97A	12	Rigid Loop	C	C-8	—	1.72	1,000	71
-15	1976	Aircraft—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	13.0	5.77A	115 <sup>(2)</sup>	Double Slide	C	C-6	.56	1.3	400	110
-16	563	Auto	13.5	.52A	4	Rigid Loop	C	C-8	—	1.72	1,000 <sup>(4)</sup>	71
-17	214-2	Auto	13.5	.52A	4	Miniature Cap	C	C-8	—	1.72	1,000 <sup>(4)</sup>	70
-18	212-2	Auto	13.5	.74A	6	Miniature Cap	C	C-8	—	1.72	2,000 <sup>(4)</sup>	70
-19	562	Auto	13.5	.74A	6	Rigid Loop	C	C-8	—	1.72	2,000 <sup>(4)</sup>	71
-20	1982	Aircraft Navigation—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	28.0	2.68A/ 75W	110 <sup>(2)</sup>	S.C. Bayonet	C	CC-8 <sup>(13)</sup>	1.06	1.88	1,000	114
-21	1968	Aircraft Gunsight—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	28.0	.89A/ 25W	15 <sup>(2)</sup>	Double Slide	C	C-V2 <sup>(13)</sup>	.41	1.17	500	108
-22	1967	Aircraft—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	28.0	5.36A/ 150W	210 <sup>(2)</sup>	Special Sleeve	C	CC-8 <sup>(13)</sup>	—	2.25	1,000	107
-23	1964	Aircraft—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	28.0	5.36A/ 150W	230 <sup>(2)</sup>	Special Sleeve	C	CC-8	—	2.25	1,000	107
-24	1970	Aircraft—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	28.0	3.57A/ 100W	150	Special Sleeve	C	CC-8	—	2.25	1,000	107
-25	1970X	Aircraft—Quartz Bulb— Halogen-Cycle <sup>(114)*</sup>	28.0	3.57A/ 100W	140	Special Sleeve	C	CC-8 <sup>(13)</sup>	—	2.25	1,000 <sup>(75)</sup>	107

## TL-3 BULB 3/8" (9.5mm) DIAMETER<sup>(2)</sup>

-26	112	Flashlight—1AA, C or D cell	1.2	22A	—	Miniature Screw	B	S-2	—	.93	5 <sup>(116)</sup>	74
-27	222	Flashlight—AA cells	2.25	.25A	—	Miniature Screw	B	C-2R	—	.93	5 <sup>(116)</sup>	74
-28	222X	Flashlight—2AA cells— Special beam pattern	2.25	.25A	—	Miniature Screw	B	C-2R	—	.93	5 <sup>(116)</sup>	74
-29	2121D	Indicator—Approx. 3/8" leads— down position <sup>(74)</sup>	2.25	.25A	—	Wire Terminal	B	C-2R	—	.82	5 <sup>(116)</sup>	—
-30	243	Flashlight—2C cells	2.33	.27A	—	Miniature Screw	B	C-2R	—	.93	10 <sup>(116)</sup>	74

\* See CAUTION notice contained in this footnote.

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
<b>T-3/4 BULB <sup>13</sup>/<sub>32</sub>" (10mm) DIAMETER<sup>(2)</sup></b>												
28-1	1846	Special Service—Resistance Ballast	.8	.033A	—	Miniature Screw	B	C-2R	—	1.19	—	75
-2	49	Radio	2.0	.06A	.04 <sup>(2)</sup>	Miniature Bayonet	B	S-2	—	1.19	1,000	76
-3	127	Toy, Indicator	2.47	.275A	.48 <sup>(2)</sup>	Wedge	C	C-2R	.65	1.06	30	77
-4	43	Indicator	2.5	.50A	.50 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	3,000	76
-5	1490	Radio	3.2	.16A	.20 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	3,000	76
-6	1906	Signal	5.0	.07A	.19 <sup>(2)</sup>	Miniature Bayonet	B	C-6	.62	1.19	1,000	76
-7	285	Signal	5.0	.09A	.25 <sup>(2)</sup>	Wedge	B	C-2R	.56	1.06	1,500 <sup>(116)</sup>	77
-8	1850	Signal—Plane of filament perpendicular to base pins	5.0	.09A	.25 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.62	1.19	1,500 <sup>(116)</sup>	76
-9	1850W	Signal—Random base pin orientation	5.0	.09A	.25 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.62	1.19	1,500 <sup>(116)</sup>	76
-10	227E	Toy, Indicator—Extended Leads— <sup>5</sup> / <sub>8</sub> " min.	5.67	.15A	.60 <sup>(2)</sup>	Wedge, Extended <sup>(122)(129)</sup>	C	C-2R	—	1.06	200	77
-11	820	Signal	6.0	.14A	.35 <sup>(2)</sup>	Wedge	B	C-2V <sup>(13)</sup>	.56	1.06	1,200	77
-12	316	Aircraft <sup>(144)</sup>	6.0	.70A	3.4 <sup>(2)</sup>	Miniature Bayonet	C	C-2R	.62	1.19	500	76
-13	1302	Radio	6.3	.035A	—	—	—	—	—	—	—	—
-14	755	Indicator	6.3	.050A	.08 <sup>(2)</sup>	Miniature Bayonet	B	C-6	.75	1.19	5,000	76
-15	2157D	Indicator— <sup>5</sup> / <sub>8</sub> " leads	6.3	.15A	.33 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	20,000 <sup>(43)</sup>	76
-16	267	Indicator—Flasher Lamp <sup>(70)</sup>	6.3	.15A	.33 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.62	1.19	5,000 <sup>(3)</sup>	76
-17	159	Radio, TV and Indicator	6.3	.15A	.34 <sup>(2)</sup>	Wedge	B	C-2R	.5	1.06	5,000+ <sup>(44)</sup>	77
-18	1847	Radio, TV and Indicator	6.3	.15A	.38 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	5,000+ <sup>(44)</sup>	76
-19	40	Radio and Indicator	6.3	.15A	.52 <sup>(2)</sup>	Miniature Screw	B	C-2R	.97	1.19	3,000	75
-20	47	Radio, TV, and Indicator	6.3	.15A	.52 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	3,000	76
-21	447	Indicator and Coin Machine	6.3	.15A	.52 <sup>(2)</sup>	Wedge	B	C-2V <sup>(13)</sup>	.56	1.06	1,500	77
-22	1866	Radio	6.3	.25A	.65 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	5,000+ <sup>(44)</sup>	76
-23	259	Radio, TV, and Indicator	6.3	.25A	.65 <sup>(2)</sup>	Wedge	B	C-2R	.65 <sup>(147)</sup>	1.06	5,000+ <sup>(44)</sup>	77
-24	555	Coin, Novelty	6.3	.25A	.90 <sup>(2)</sup>	Wedge	C	C-2R	.65	1.06	3,000	77
-25	44	Indicator, Radio, and TV	6.3	.25A	.90 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.78	1.19	3,000	76
-26	1810	Special Service	6.3	.40A	1.5 <sup>(2)</sup>	Miniature Bayonet	B	C-2R	.72	1.19	3,000	76
-27	238	Indicator <sup>(62)(144)</sup>	6.3	.50A	2	Miniature Bayonet	C	C-2R	.72	1.19	2,000	76
-28	147	Indicator	7.0	.43A	2	Wedge	B	C-2R	.56	1.06	1,500	77
-29	947	Signal <sup>(144)</sup>	9.84	.50A	4	Miniature Bayonet	C	C-2R	.5	1.19	500	76
-30	280	Signal	10.0	.13A	.85 <sup>(2)</sup>	Wedge	B	C-2V	.56	1.06	250	77
-31	1408	Signal	10.0	.13A	.85 <sup>(2)</sup>	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.62	1.19	250	76
-32	7695	Emergency Lighting—Halogen-Cycle <sup>(131)*</sup>	12.8	50W	100	S.C. Bayonet	C	C-6	1.25	2.25	100	—
-33	880	Auto-Fog <sup>(17)</sup> —Shielded filament	12.8	2.1A	43●	Axial Plastic Prefocus	C	C-6	1.25	2.68	300	115
-34	881	Auto-Fog <sup>(17)</sup> —Shielded filament	12.8	2.1A	43●	Right Angle Plastic Prefocus	C	C-6	1.25	2.68	300	116
-35	1816	Aircraft and Auto	13.0	.33A	3 <sup>(2)</sup>	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.62	1.19	1,000	76
-36	558	Auto and Indicator Lens end <sup>(68)</sup>	13.0	.33A	—	Wedge	B	C-2V <sup>(13)</sup>	—	1.06	500	—
-37	192	Auto Instrument and Indicator	13.0	.33A	3	Wedge	B	C-2V <sup>(13)</sup>	.56	1.06	1,000	77
-38	W10/3	Auto, Indicator—European (ECE)	13.5	.25A	1.75	Wedge	C	C-2V <sup>(13)</sup>	12.7mm	26.8mm	1,000	77
-39	756	Indicator	14.0	.08A	.31 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	15,000 <sup>(43)</sup>	76
-40	658	Indicator	14.0	.08A	.31 <sup>(2)</sup>	Wedge	B	C-2F	.56	1.06	15,000 <sup>(43)</sup>	77
-41	2159D	Indicator—Approx. <sup>1</sup> / <sub>2</sub> " leads down position	14.0	.08A	.31 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	1.06	15,000 <sup>(43)</sup>	78
-42	161	Auto, Inst. & Ind. H.D.	14.0	.19A	1	Wedge	B	C-2F	.56	1.06	4,000	77
-43	1487	Indicator	14.0	.20A	1.4 <sup>(2)</sup>	Miniature Screw	B	C-2F	.94	1.19	3,000	75
-44	1815	Indicator	14.0	.20A	1.4 <sup>(2)</sup>	Miniature Bayonet	B	C-2F <sup>(147)</sup>	.75	1.19	3,000	76
-45	1891	Auto, Radio and Indicator	14.0	.24A	2 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	500	76
-46	158	Auto, Instrument, and Indicator	14.0	.24A	2	Wedge	B	C-2V <sup>(13)</sup>	.56	1.06	500	77
-47	124E-1	Truck Clearance— <sup>9</sup> / <sub>16</sub> " leads up	14.0	.27A	1.5	Wire Terminal <sup>(122)</sup>	B	C-2F	—	1.06	5,000+	—
-48	194	Auto, Inst. & Ind. H.D.	14.0	.27A	2	Wedge	B	C-2F	.56	1.06	2,500	77
-49	194NA	Auto Side marker—Natural amber bulb—Heavy Duty	14.0	.27A	1.5	Wedge	B	C-2F	—	1.06	2,500	77
-50	194A	Auto Side marker—Amber (yellow) silicone coating—Heavy Duty <sup>(132)</sup>	14.0	.27A	—	Wedge	B	C-2F	—	1.06	2,500	77
-51	194E	Truck Clearance Ext. Leads	14.0	.27A	2	Wire Terminal <sup>(122)</sup>	B	C-2F	—	1.06	2,500	—
-52	194E-1	Truck Clearance <sup>9</sup> / <sub>16</sub> " leads up	14.0	.27A	2	Wire Terminal <sup>(122)</sup>	B	C-2F	—	1.06	2,500	—
-53	1889	Auto—Heavy Duty	14.0	.27A	2	Miniature Bayonet	B	C-2F	.56	1.19	2,000	76
-54	1893	Auto—Heavy Duty	14.0	.33A	2 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	7,500	76

\*See CAUTION notice contained in this footnote.

•The filament will generate 43 mscp in clear bulb.

See FOOTNOTES, pages 37-39

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac. C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## T-3¼ BULB 1<sup>3</sup>/<sub>32</sub>" (10mm) DIAMETER<sup>(2)</sup> (continued)

29-1	168	Auto Instrument	14.0	.35A	3	Wedge	B	C-2F	.56	1.06	1,500	77
-2	1813	Radio	14.4	.10A	.86 <sup>(2)</sup>	Miniature Bayonet	B	C-2V <sup>(13)</sup>	.62	1.19	1,000	76
-3	1892	Auto and Indicator	14.4	.12A	.75 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	1,000	76
-4	1818	Aircraft	24.0	.17A	3.3 <sup>(2)</sup>	Miniature Bayonet	B	C-2F <sup>(14,7)</sup>	.62	1.19	250	76
-5	1843	Indicator <sup>(15)</sup>	28.0	.022A	.20 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	3,000	76
-6	1819	Indicator	28.0	.04A	.34 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	2,500	76
-7	585	Indicator	28.0	.04A	.3 <sup>(2)</sup>	Wedge	B	C-2F	.56	1.06	7,000 <sup>(75)(76)</sup>	77
-8	656	Indicator	28.0	.06A	.62 <sup>(2)</sup>	Wedge	B	C-2F	.56	1.06	2,500	77
-9	1829	Indicator	28.0	.07A	1 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	1,000	76
-10	757	Indicator	28.0	.08A	.62 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	15,000 <sup>(43)(79)</sup>	76
-11	2188U	Special Service—Approx. ½"	28.0	.08A	.62 <sup>(2)</sup>	Wire Terminal <sup>(74)</sup>	B	C-2F	—	1.06	15,000 <sup>(43)(79)</sup>	79
-12	657	Indicator	28.0	.08A	.62 <sup>(2)</sup>	Wedge	B	C-2F	.56	1.06	15,000 <sup>(43)(79)</sup>	77
-13	1820	Indicator	28.0	.10A	1.6 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	1,000	76
-14	400	Aircraft	28.0	.10A	1.6 <sup>(2)</sup>	Wedge	B	C-2F	.56	1.06	1,000	77
-15	313	Aircraft	28.0	.17A	3.5 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	500	76
-16	1864	Aircraft	28.0	.17A	3 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	1,500	76
-17	464	Aircraft	28.0	.17A	3 <sup>(2)</sup>	Wedge	B	C-2F	.56	1.06	1,500	77
-18	1873	Aircraft	28.0	.20A	3 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	7,000	76
-19	1822	Indicator	36.0	.10A	2.1 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	1,000	76
-20	1828	Indicator	37.5	.05A	.65 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	3,000	76
-21	1835	Indicator	55.0	.05A	1.1 <sup>(2)</sup>	Miniature Bayonet	B	C-2F	.62	1.19	5,000	76

## T-4 BULB ½" (13mm) DIAMETER<sup>(2)</sup>

-22	1983	Aircraft—Navigation—Quartz bulb—Halogen-Cycle <sup>(114)</sup>	10.0	10A	130 <sup>(2)</sup>	Wire Terminal	C	C-8	1.25	1.8	2,000	112
-23	1960	Instrument, Oscillograph—Quartz bulb—Halogen-Cycle <sup>(114)</sup>	11.0	60W	90 <sup>(2)</sup>	Tab	C	CC-8	.75	2.25	1,000	105
-24	1958	Aircraft—Quartz bulb—Halogen-Cycle <sup>(114)</sup>	28.0	150W	250 <sup>(2)</sup>	Tab	C	CC-8	.75	2.25	300	105
-25	1959	Aircraft—Quartz bulb, filament supported—Halogen-Cycle <sup>(114)</sup>	28.0	150W	240 <sup>(2)</sup>	Tab	C	CC-8 <sup>(13)</sup>	.75	2.25	300	105
-26	1987	Aircraft—Quartz bulb—Halogen-Cycle <sup>(114)</sup>	28.0	150W	240 <sup>(2)</sup>	D.C. Bayonet	C	CC-6	1.18	2.44	700	—
-27	1986	Aircraft—Quartz bulb—Halogen-Cycle <sup>(114)</sup>	28.0	250W	600 <sup>(2)</sup>	Wire Terminal	C	CC-6	1.03	2.0	100	—
-28	1945	Marine—Quartz bulb—Halogen-Cycle <sup>(114)</sup>	32.0	200W	360 <sup>(2)</sup>	Two Pin	C	CC-6	1.31	2.25	200	109

## T-4½ BULB ¾" (14 mm) DIAMETER<sup>(2)</sup>

-29	1886	Indicator	6.3	.90A	4.2 <sup>(2)</sup>	Miniature Bayonet	C	C-2R	.75	1.38	3,000	83
-30	500	Flashlight <sup>(144)</sup>	9.84	.50A	4.6 <sup>(2)</sup>	Miniature Screw	C	C-2R	.72	1.38	200	84
-31	957	Signal <sup>(144)</sup>	9.84	.50A	4.6 <sup>(2)</sup>	Miniature Bayonet	C	C-2R	.5	1.38	200	83
-32	1416	Marine <sup>(14)(144)</sup>	12.8	.80A	8 <sup>(2)</sup>	Miniature Bayonet	C	C-2R	.62	1.38	1,000	83
-33	1414	Aircraft <sup>(144)</sup>	12.0	.46A	6	Miniature Bayonet	C	C-2R	.62	1.38	500	83
-34	1495	Aircraft <sup>(14)</sup>	28.0	.30A	6	Miniature Bayonet	B	C-2F	.62	1.38	500	83
-35	1495X	Aircraft—Gas filled	28.0	.30A	6	Miniature Bayonet	C	C-2F	.62	1.38	500	83

## T-5 BULB 1⅝" (16mm) DIAMETER<sup>(2)</sup>

-36	1876	Special Service, Photoelectric scanner—Silver Plated contact (A.A. tol. 1/64")	3.5	2.50A	6.5 <sup>(2)</sup>	S. C. Bayonet	C	C-6	1.12	1.75	2,000	85
-37	1876X	Special Service, Photoelectric scanner—Silver Plated contact (A.A. tol. 1/32")	3.5	2.50A	6.5 <sup>(2)</sup>	S. C. Bayonet	C	C-6	1.12	1.75	2,000	85
-38	1434	Instrument, Photocell exciter—Silver Plated contact <sup>(8)</sup>	3.7	2.75A	11 <sup>(2)</sup>	S. C. Bayonet	C	C-6	1.12	1.75	100	85
-39	1874	Instrument <sup>(8)</sup>	3.7	2.75A	11 <sup>(2)</sup>	S. C. Bayonet	C	C-6	1.12	1.75	100	85
-40	914	Emergency Lighting	4.0	.90A	3.5	Wedge	C	C-6	.75	1.49	50	86
-41	926	Emergency Lighting	4.0	1.8A	7.5	Wedge	C	C-2R	.81	1.49	50	86
-42	909	Emergency Lighting	6.0	.62A	3.8	Wedge	C	C-6	.81	1.49	30	86
-43	927	Emergency Lighting	6.0	1.2A	8.0	Wedge	C	C-2R	.81	1.49	50	86
-44	908	Emergency Lighting	6.0	1.5A	12 <sup>(2)</sup>	Wedge	C	C-2R	.81	1.49	50	86
-45	1489	Instrument (Axial alignment tolerance 1/64")	6.5	2.75A	24 <sup>(2)</sup>	S. C. Bayonet	C	C-6	1.125	1.75	125	85
-46	915	Emergency Lighting	12.0	.75A	24 <sup>(2)</sup>	Wedge	C	C-2R	.81	1.49	50	86
-47	917	Home Appliance	12.8	1.2A	10	Wedge	C	C-2F	.81	1.49	1,200	86
-48	912	Auto—Heavy Duty	12.8	1.0A	12	Wedge	C	C-2R	.81	1.49	1,000	86

\*See CAUTION notice contained in this footnote.

# Miniature and Subminiature Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Mean Spherical Candle-Power	Base	Atmosphere B-Vac./C-Gas	Filament Designation	Light Center Length (Inches)	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## T-5 BULB 16mm (5/8 in) DIAMETER<sup>(2)</sup> (continued)

30-1	921	Auto—Heavy Duty <sup>(121)</sup>	12.8	1.4A	21	Wedge	C	C-2R	.81	1.49	1,000	86
-2	906	Auto—Heavy Duty	13.0	.69A	6	Wedge	C	C-2F	.81	1.49	1,000	86
-3	904	Auto—Heavy Duty	13.5	.69A	4	Wedge	C	C-2F	.81	1.49	5,000 + <sup>(4)</sup>	86

## T-7 BULB 7/8" (22mm) DIAMETER<sup>(2)</sup>

-4	1940	Aircraft Marker <sup>(67)</sup>	14.0	3.57A/ 50W	75 <sup>(2)</sup>	S. C. Bayonet	C	C-8Z	1.25	2.16	300	87
-5	1944	Special Service—Silver contact <sup>(14)</sup>	14.0	3.57A	75 <sup>(2)</sup>	S. C. Bayonet	C	C-8Z	1.25	2.25	300	87
-6	1944X	Special Service—Silver contact— Filament oriented	14.0	3.57A	75 <sup>(2)</sup>	S. C. Bayonet	C	C-8Z	1.25	2.25	300	87
-7	1939X	Aircraft Marker <sup>(67)</sup>	28.0	1.79A/ 50W	70 <sup>(2)</sup>	S. C. Bayonet	C	C-2V <sup>(13)</sup>	1.25	2.16	300	87

## T-8 BULB 1" (22mm) DIAMETER<sup>(2)</sup>

-8	ML20/ R-28	Aircraft—Lumiline—Red	28.0	20W	—	Disk	B	2C-8	—	5.75 <sup>(12)</sup>	500	89
-9	ML20/ OF-28	Aircraft—Lumiline—Inside Frosted	28.0	20W	—	Disk	B	2C-8	—	5.75 <sup>(12)</sup>	500	89

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Candle Power	Base	Bulb	Filament Designation	Max. Overall Length (Inches)	Rated Average Lab Life (Hours)	Fig. No.
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## FLASHER LAMP<sup>(70)\*\*</sup>

-10	406	Toy—2D cells <sup>(70)</sup>	2.6	.30A	.43 <sup>(2)</sup>	Miniature Screw	G-4½	C-2R	1.07	50 <sup>(3)(116)</sup>	91
-11	407	Hand Lantern—4F cells <sup>(70)</sup>	4.9	.30A	1.2 <sup>(2)</sup>	Miniature Screw	G-4½	C-2R	1.07	50 <sup>(3)(116)</sup>	91
-12	267	Indicator <sup>(70)</sup>	6.3	.15A	.33 <sup>(2)</sup>	Miniature Bayonet	T-3¼	C-2R	1.19	5,000 <sup>(3)</sup>	76
-13	455	Indicator <sup>(70)</sup>	6.5	.50A	1.9 <sup>(2)</sup>	Miniature Bayonet	G-4½	C-2R	1.07	500 <sup>(3)</sup>	92
-14	257	Auto and Toy Train <sup>(70)</sup>	14.0	.27A	1.6 <sup>(2)</sup>	Miniature Bayonet	G-4½	C-2R	1.07	500 <sup>(3)</sup>	91
-15	258	Toy Train <sup>(70)</sup>	14.0	.27A	1.6 <sup>(2)</sup>	Miniature Screw	G-4½	C-2R	1.07	500 <sup>(3)</sup>	91

\*\* Flasher-Filament<sup>(70)</sup> lamps have a bi-metal strip added to the filament mount to provide the flashing. Heat from the filament causes the strip to bend away from the lead wire, breaking the circuit. As the bi-metal strip cools it returns to its original position against the lead wire and the lamp lights.

Line No.	GE Lamp No.	Primary Application	Design Volts	Watts (Nominal)	Maximum Overall Length (Inches)	Base	Fig. No.
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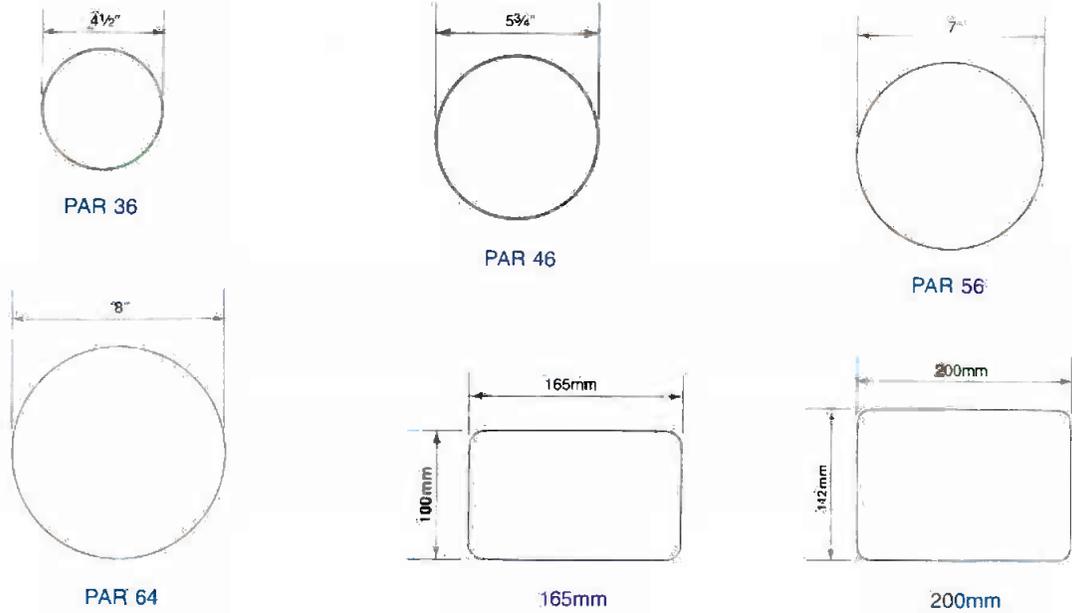
## ELECTRIC DISCHARGE<sup>(71)</sup> LAMPS—FLUORESCENT T-5 BULB 5/8" (16mm) DIAMETER<sup>(2)</sup>

-16	5004CW	Aircraft—Cool White <sup>(32)(71)</sup>	a.c.	4	6 Nom.	Miniature Pinless	93
-17	5004WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	4	6 Nom.	Miniature Pinless	93
-18	5104WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	4	6 Nom.	Miniature Bi-Pin	94
-19	5106WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	6	9 Nom.	Miniature Bi-Pin	94
-20	5008CW	Aircraft—Cool White <sup>(32)(71)</sup>	a.c.	8	12 Nom.	Miniature Pinless	93
-21	5008R	Aircraft—Red <sup>(32)(71)</sup>	a.c.	8	12 Nom.	Miniature Pinless	93
-22	5008WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	8	12 Nom.	Miniature Pinless	93
-23	5108WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	8	12 Nom.	Miniature Bi-Pin	94
-24	5013CW	Aircraft—Cool White <sup>(32)(71)</sup>	a.c.	13	21 Nom.	Miniature Pinless	93
-25	5013R	Aircraft—Red <sup>(32)(71)</sup>	a.c.	13	21 Nom.	Miniature Pinless	93
-26	5013WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	13	21 Nom.	Miniature Pinless	93
-27	5113WW	Aircraft—Warm White <sup>(32)(71)</sup>	a.c.	13	21 Nom.	Miniature Bi-Pin	94

\* See CAUTION notice contained in this footnote.

See FOOTNOTES, pages 37-39

# Sealed Beam Filaments & Bases

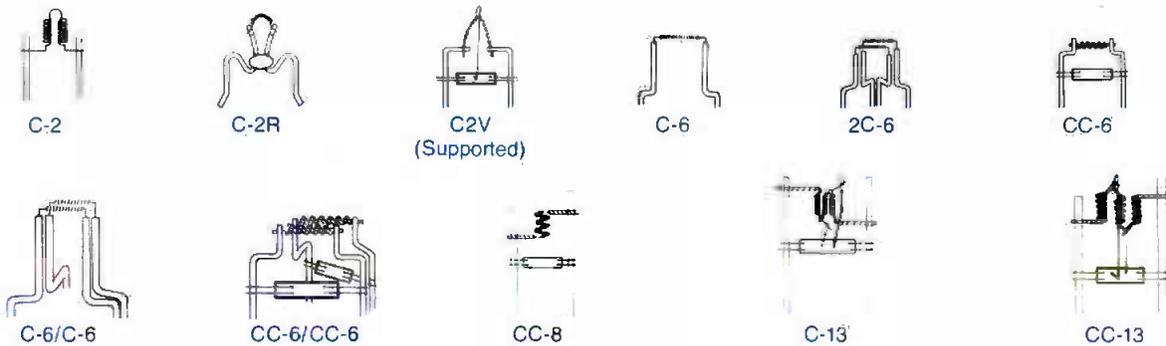


Typical Sealed Beam Lamp Dimensions

## Filaments and Bases

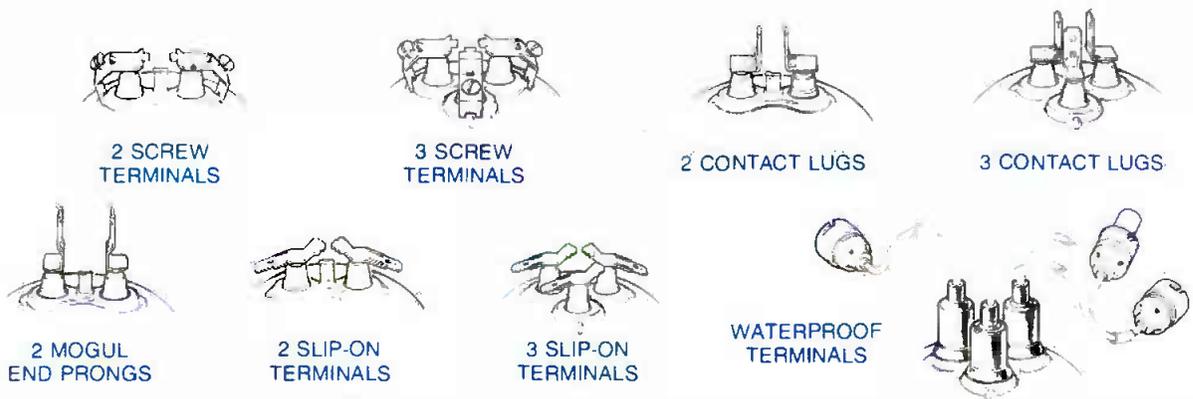
### FILAMENTS

Filaments for sealed beam lamps may be a coil or a coiled coil wire (indicated by the letters C and CC respectively). Coiling the filament wire reduces gas losses and increases efficiency. The number following the coil identification letter(s) denotes the arrangement of the filament on the supports.



### BASES

Bases provide electrical contact to the lamp. The most common bases for sealed beam lamps are the screw terminal and contact lug types. Other types are also available, as illustrated.

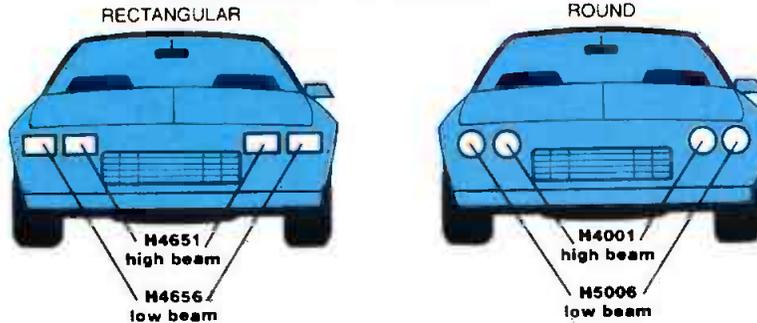


# GE POWER PLUS™ HALOGEN HEADLAMP SELECTION GUIDE

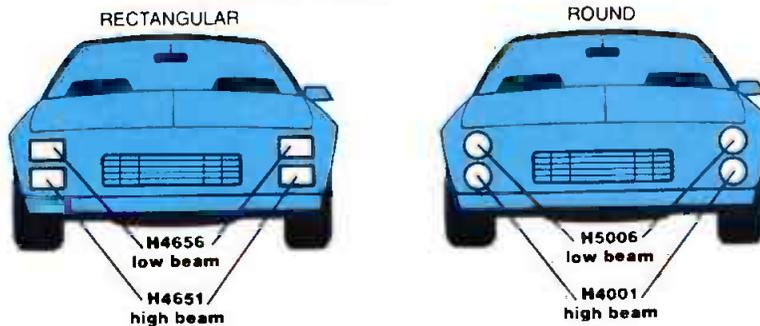
## GE HALOGENS WILL FIT ALL TYPES OF HEADLIGHT SYSTEMS.

Examine the illustrations to the right. Determine which headlight system your car has. Then select the GE halogen (prefaced with an "H") that fits your system. GE Power Plus halogens provide a whiter and brighter light, allowing you to see farther and drive safer. They are legal in all 50 states and Canada. Try one and see the difference!

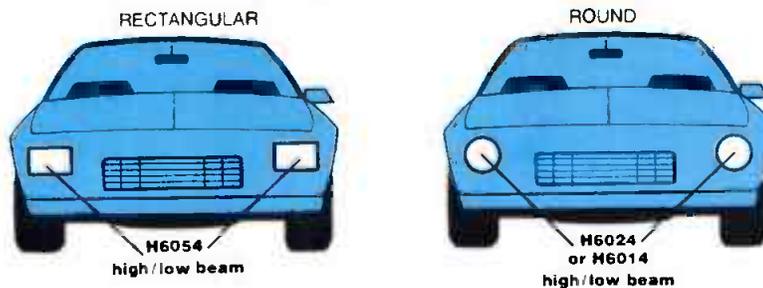
### HORIZONTAL 4-HEADLIGHT SYSTEM



### VERTICAL 4-HEADLIGHT SYSTEM



### 2-HEADLIGHT SYSTEM



## EASY, DO-IT-YOURSELF INSTALLATION.

It's a quick and easy job to install GE halogens. No rewiring needed, no system alteration necessary.

## HALOGEN HEADLAMPS CAN BE INSTALLED INDIVIDUALLY OR IN PAIRS.

#### THIS GE POWER PLUS™ HALOGEN HEADLAMP

H4001  
H4651  
H4656  
H5006  
H6024/H6014  
H6054

#### REPLACES THIS STANDARD HEADLIGHT

4001/5001  
4651  
4652  
4000  
6014  
6052

# Sealed Beam Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Approx. Initial Maximum Beam C.P.	Approx. Total Spread to 10% Max. C.P. - Base (Degrees)		Rated Average Lab Life (Hours)	Base	Filament Designation	Max. Overall Length		Fig. No.
						Horiz.	Vert.				mm	in	

## RECTANGULAR 100mm x 165mm (4.2 in x 6.5 in)<sup>(2)</sup>

32-1	4651	Auto Headlamp, High Beam, Type 1A1	12.8	50W	—	—	—	200 <sup>(4)</sup>	2 Contact Lugs	C-6	121	4.8	—
-2	H4651	Halogen Auto Headlamp, High Beam, Type 1A <sup>(118)</sup> *(151)	12.8	50W	—	—	—	200 <sup>(4)</sup>	2 Contact Lugs	C-6	121	4.8	—
-3	4652	Auto Headlamp, Low Beam, Type 2A1 <sup>(26)</sup>	12.8/12.8	40W/60W	—	—	—	200 <sup>(4)</sup> /320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	121	4.8	—
-5	H4656	Halogen Auto Headlamp, Low Beam, Type 2A1 <sup>(118)</sup> *(151)	12.8/12.8	35W/35W	—	—	—	200 <sup>(4)</sup> /320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	121	4.8	—
-6	4912-1	Auto/Truck, Fog <sup>(81)</sup>	12.8	50W	—	40	7	300	Slip-on Terminals	C-6	115	4.53	—
-7	4913-1	Farm Tractor, Flood	12.8	50W	1,350	80	20	400 <sup>(4)</sup>	Slip-on Terminals	C-6	115	4.53	—
-8	4919-1	Farm Tractor <sup>(94)</sup>	12.8	50W	3,750	Trapezoidal		400 <sup>(4)</sup>	Slip-on Terminals	C-6	115	4.53	—
-9	4921-1	Auto/Truck, Special Service <sup>(109)</sup>	12.8	100W	—	40	7	300	Slip-on Terminals	C-6	115	4.53	—
-10	H7921-1	Halogen Auto/Truck, Special Service <sup>(109)</sup>	12.8	50W	23,900	35	5	200 <sup>(4)</sup>	Slip-on Terminals	C-6	121	4.8	—

## RECTANGULAR 142mm x 200mm

-11	6052	Auto Headlamp, Type 2B1 <sup>(26)</sup>	12.8/12.8	65W/55W	—	—	—	150 <sup>(4)</sup> /320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	138	—	—
-12	H6054	Halogen Auto Headlamp, Type 2B1 <sup>(118)</sup> *(151)	12.8/12.8	65W/35W	—	—	—	150 <sup>(4)</sup> /320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	138	5 <sup>7</sup> / <sub>16</sub>	—

## PAR 36 BULB 114mm (4½ in) DIAMETER<sup>(2)</sup>

-13	4546	Hand Lantern	4.7	0.5A	6,300	3	3	100	Screw Terminals	C-2R	70	2¾	—
-14	4546-1	Hand Lantern	4.7	0.5A	6,300	3	3	100	Slip-on Terminals	C-2R	70	2¾	—
-15	4547	Hand Lantern	4.75	1.25A	20,000	3	3	100	Screw Terminals	C-2R	70	2¾	—
-16	4547-4	Hand Lantern <sup>(152)</sup>	4.75	1.25A	20,000	3	3	100	Screw Terminals	C-2R	70	2¾	—
-17	4346	Hand Lantern <sup>(96)</sup>	5.3	0.5A	4,000	4	4	100	Screw Terminals	C-2R	70	2¾	—
-18	4468	Hand Lantern	5.3	0.5A	7,000	3	3	100	Slip-on Terminals	C-2R	70	2¾	—
-19	H7556	Halogen Emergency Bldg. Lighting <sup>(118)*</sup>	6.0	6W	400	30	20	50	Screw Terminals	C-6	70	2¾	—
-20	7672-1	Emergency Bldg. Lighting	6.0	7.2W	350	30	20	50	Slip-on Terminals	C-6	70	2¾	—
-21	7613	Emergency Bldg. Lighting	6.0	8W	400	30	20	50	Screw Terminals	C-6	70	2¾	—
-22	7613-1	Emergency Bldg. Lighting	6.0	8W	400	30	20	50	Slip-on Terminals	C-6	70	2¾	—
-23	H7550	Halogen Hand Lantern <sup>(118)*</sup>	6.0	8W	25,000	3	3	50	Screw Terminals	C-6	70	2¾	—
-24	H7551	Halogen Emergency Bldg. Lighting <sup>(118)*</sup>	6.0	8W	550	30	20	50	Screw Terminals	C-6	70	2¾	—
-25	H7552	Halogen Emergency Bldg. Lighting <sup>(118)*</sup>	6.0	10W	650	30	20	50	Screw Terminals	C-6	70	2¾	—
-26	H7553	Halogen Emergency Bldg. Lighting <sup>(118)*</sup>	6.0	12W	850	30	20	50	Screw Terminals	C-6	70	2¾	—
-27	H7554	Halogen Emergency Bldg. Lighting <sup>(118)*</sup>	6.0	20W	1,400	30	20	50	Screw Terminals	C-6	70	2¾	—
-28	4634	Aircraft Navigation <sup>(82)</sup>	6.0	75W	65,000	11	5	300	Screw Terminals	C-6	70	2¾	—
-29	4614	Aircraft Navigation <sup>(82)</sup>	6.0	100W	85,000	11	6	300	Screw Terminals	C-6	70	2¾	—
-30	4516	Spotlamp	6.2	30W	45,000	9	4	300	Screw Terminals	C-6	70	2¾	—
-31	4511	Tractor	6.2	30W	2,300	Trapezoidal		300 <sup>(23)</sup>	Screw Terminals	C-6	70	2¾	—
-32	4042	Emergency Bldg. Lighting	6.4	12W	1,100	45	20	150	Screw Terminals	C-6	70	2¾	—
-33	4014	Emergency Bldg. Lighting	6.4	18W	1,500	50	25	200	Screw Terminals	C-6	70	2¾	—
-34	4667	Moped Headlamp <sup>(17)</sup>	6.4	18W	—	—	—	200	Mogul End Prongs	C-6	79.4	3⅞	—
-35	4667-1	Moped Headlamp <sup>(17)</sup>	6.4	18W	—	—	—	200	Slip-on Terminals	C-6	70	2¾	—
-36	4767	Moped Headlamp <sup>(17)</sup>	6.4	25W	—	—	—	300	Mogul End Prongs	C-6	79.4	3⅞	—
-37	4767-1	Moped Headlamp <sup>(17)</sup>	6.4	25W	—	—	—	300	Slip-on Terminals	C-6	70	2¾	—
-38	4767-2	Moped Headlamp <sup>(17)</sup>	6.4	25W	—	—	—	300	Screw Terminals	C-6	70	2¾	—
-39	4510	Tractor Flood, Emergency Bldg. Lighting	6.4	25W	800	80	20	300	Screw Terminals	C-6	70	2¾	—
-40	4308	Headlamp, Horse-Drawn Vehicles	6.4/6.4	25W/12W	3,000	24,000/		300/150	3 Screw Terminals	C-6/C-6	70	2¾	—
-41	4515	Spotlamp <sup>(82)</sup>	6.4	30W	55,000	5	5	100	Screw Terminals	C-6	70	2¾	—
-42	H7555	Halogen Emergency Bldg. Lighting <sup>(118)*</sup>	12.0	8W	550	30	20	50	Screw Terminals	C-6	70	2¾	—

\*See CAUTION notice contained in this footnote.

# Sealed Beam Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Approx. Initial Maximum Beam C.P.	Approx. Total Spread to 10% Max. C.P. - Base (Degrees)		Rated Average Lab Life (Hours)	Base	Filament Designation	Max. Overall Length		Fig. No.
						Horiz.	Vert.				mm	in	

## PAR 36 BULB 114mm (4½ in) DIAMETER<sup>(2)</sup> (continued)

34-1	H7557	Emergency Bldg. Lighting Halogen-Cycle <sup>(118)*</sup>	12.0	12W	850	30	20	50	Screw Terminals	C-6	70	2¾	—
-2	4044	Emergency Bldg. Lighting	12.0	12W	1,100	50	25	150	Screw Terminals	C-6	70	2¾	—
-3	4044-1	Emergency Bldg. Lighting	12.0	12W	1,100	50	25	150	Slip-on Terminals	C-6	70	2¾	—
-4	4414	Warning Signal, Emergency Bldg. Lighting, Garden and Security Lighting	12.8	18W	1,500	50	25	300	Screw Terminals	C-6	70	2¾	—
-5	4414-1	Signal	12.8	18W	1,500	50	25	300	Slip-on Terminals	C-6	70	2¾	—
-6	4414A	Turn Signal, Warning Signal Yellow Lens	12.8	18W	450	50	25	300	Screw Terminals	C-6	70	2¾	—
-7	4414R	Turn Signal, Warning Signal Red Lens	12.8	18W	275	50	25	300	Screw Terminals	C-6	70	2¾	—
-8	7414Y	Signal, Light Yellow Lens	12.8	18W	1,000	50	25	300	Screw Terminals	C-6	70	2¾	—
-9	4446	Emergency Bldg. Lighting	12.8	25W	400	80	80	300	Screw Terminals	C-6	70	2¾	—
-10	4776	Moped Headlamp <sup>(17)</sup>	12.8	25W	—	—	—	300	Screw Terminals	C-6	70	2¾	—
-11	4405	Spotlamp <sup>(82)</sup>	12.8	30W	50,000	6	5	100	Screw Terminals	C-6	70	2¾	—
-12	4405-1	Spotlamp <sup>(82)</sup>	12.8	30W	50,000	6	5	100	Slip-on Terminals	C-6	70	2¾	—
-13	4416	Spotlamp, Signal	12.8	30W	35,000	11	4	300	Screw Terminals	C-6	70	2¾	—
-14	4416-1	Spotlamp, Signal	12.8	30W	35,000	11	4	300	Slip-on Terminals	C-6	70	2¾	—
-15	4416A	Signal, Yellow Lens Cover	12.8	30W	26,000	11	4	300	Screw Terminals	C-6	70	2¾	—
-16	4416B	Signal, Outside Blue Coating	12.8	30W	—	11	4	300	Screw Terminals	C-6	70	2¾	—
-17	4416R	Signal, Red Lens Cover	12.8	30W	4,000	11	4	300	Screw Terminals	C-6	70	2¾	—
-18	4406	Tractor, Flood <sup>(134)</sup>	12.8	35W	600	80	30	300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-19	4406-1	Tractor, Flood <sup>(134)</sup>	12.8	35W	600	80	30	300 <sup>(4)</sup>	Slip-on Terminals	C-6	70	2¾	—
-20	4409X	Farm Tractor <sup>(137)</sup>	12.8	35W	600	80	30	300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-21	4410	Backup Lamp, Tractor Flood	12.8	35W	—	80	30	300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-22	4411	Tractor	12.8	35W	3,000	Trapezoidal		300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-23	4411-1	Tractor	12.8	35W	3,000	Trapezoidal		300 <sup>(4)</sup>	Slip-on Terminals	C-6	70	2¾	—
-24	4422	Tractor	12.8	35W	600	75° Cone		300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-25	4603	Tractor <sup>(35)(94)(143)</sup>	12.8	35W	2,800	Trapezoidal		300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-26	4603X	Tractor <sup>(142)</sup>	12.8	35W	2,800	Trapezoidal		300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-27	4415	Fog <sup>(21)</sup>	12.8	35W	9,000	40	5	300	Screw Terminals	C-6	70	2¾	—
-28	4415A	Fog, Yellow Lens <sup>(81)</sup>	12.8	35W	7,000	40	5	300	Screw Terminals	C-6	70	2¾	—
-29	7400	Signal, Rotating Beacon	12.8	35W	33,000	12	5	300	Slip-on Terminals	C-6	70	2¾	—
-30	7400-1	Signal, Rotating Beacon	12.8	35W	33,000	12	5	300	Screw Terminals	C-6	70	2¾	—
-31	7400R	Signal, Rotating Beacon, Red Lens <sup>(108)</sup>	12.8	35W	4,900	12	5	300	Slip-on Terminals	C-6	70	2¾	—
-32	H7600	Halogen Signal, Rotating Beacon <sup>(118)*</sup>	12.8	37.5W	60,000	9	4½	300	Screw Terminals	C-6	70	2¾	—
-33	H7601-1	Halogen Signal <sup>(118)*</sup>	12.8	37.5W	4,300	50	25	300	Slip-on Terminals	C-6	70	2¾	—
-34	H7616	Halogen Spotlamp <sup>(118)*</sup>	12.8	37.5W	70,000	7	4	300	Screw Terminals	C-6	70	2¾	—
-35	H7616-1	Halogen Spotlamp <sup>(118)*</sup>	12.8	37.5W	70,000	7	4	300	Slip-on Terminals	C-6	70	2¾	—
-36	4440X	Tractor	12.8/12.8	40W/40W	6,000/4,500	40/33	7/9	320/320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	76	3	—
-37	4440X-1	Tractor	12.8/12.8	40W/40W	6,000/4,500	40/33	7/9	320/320 <sup>(4)</sup>	3 Slip-on Terminals	C-6/C-6	70	2¾	—
-38	4460X	Tractor	12.8/12.8	40W/40W	6,500/5,000	22/22	10/13	320/320 <sup>(4)</sup>	3 Screw Terminals	C-6/C-6	70	2¾	—
-39	H7606	Tractor, Flood	12.8	50W	1,000	80	30	400 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-40	H7610	Halogen-Cycle <sup>(118)*</sup>	12.8	50W	5,200	Trapezoidal		400 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-41	H7614	Halogen Flood <sup>(118)*</sup>	12.8	50W	2,000	70	30	100	Screw Terminals	C-6	70	2¾	—
-42	H7604	Halogen Spotlamp <sup>(118)*</sup>	12.8	50W	100,000	7	5	100	Screw Terminals	C-6	70	2¾	—
-43	H7675-1	Halogen Special Service <sup>(109)(118)*</sup>	12.8	50W	15,000	35	7	200 <sup>(4)</sup>	Slip-on Terminals	C-6	70	2¾	—
-44	4425R	C.I.M. Stop/Tail, Red Lens <sup>(109)</sup>	12.8/12.8	50W/18W	500/100	—	—	200/200 <sup>(4)</sup>	3 Screw Terminals	C-6	70	2¾	—
-45	4461	Tractor	12.8	60W	6,000	Trapezoidal		300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-46	4464	Signal, Rotating Beacon	12.8	60W	50,000	12	5	300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-47	4464R	Signal, Rotating Beacon Red Lens <sup>(108)</sup>	12.8	60W	7,000	12	5	300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—

# Sealed Beam Lamp Specifications

Line No.	GE Lamp No.	Primary Application <sup>1</sup>	Design Volts	Design Watts or Amps	Approx. Initial Maximum Beam C.P.	Approx. Total Spread to 10% Max. C.P. - Base (Degrees)		Rated Average Lab Life (Hours)	Base	Filament Designation	Max. Overall Length		Fig. No.
						Horiz.	Vert.				mm	in	

## PAR 36 BULB (114mm) 4½ in Diameter<sup>(2)</sup> (continued)

35-1	4466	Tractor <sup>(134)</sup>	12.8	60W	1,000	80	30	300 <sup>(4)</sup>	Screw Terminals	C-6	70	2¾	—
-2	4460X-4	Tractor	12.8/12.8	60W/60W	—	—	—	—	3 Screw Terminals	C-6	70	2¾	—
-3	4675	Special Service <sup>(81)(109)</sup>	13.0	75W	15,000	40	7	300	Slip-on Terminals	C-6	70	2¾	—
-4	4509	Aircraft Landing Spotlamp <sup>(98)</sup>	13.0	100W	110,000	12	6	25	Screw Terminals	C-6	70	2¾	—
-5	4509X	Marine Spotlamp <sup>(82)</sup>	13.0	100W	110,000	12	6	25	Screw Terminals	C-6	70	2¾	—
-6	4519	Marine	13.0	100W	30,000	40	7	25	Screw Terminals	C-6	70	2¾	—
-7	4595	Aircraft Navigation	13.0	100W	60,000	14	6	300	Screw Terminals	C-6	70	2¾	—
-8	4700	Spot/Flood	13.0/13.0	100/100W	72,000/30,000	12/17	7/18	25/25	3 Screw Terminals	C-6	70	2¾	—
-9	4313	Aircraft Landing	13.0	250W	—	—	—	25	Screw Terminals	C-6	70	2¾	—
-10	Q4631	Halogen Quartzline <sup>®</sup> , Aircraft Landing, Wing Inspection <sup>(14)(118)*</sup>	13.0	250W	80,000	13	12	500	Screw Terminals	C-6	70	2¾	—
-11	Q4632	Halogen Quartzline <sup>®</sup> , Aircraft Logo <sup>(14)(96)(118)*</sup>	13.0	250W	75,000	14	12	500	Screw Terminals	C-6	70	2¾	—
-12	4502	Auto Headlamp, Military	28.0	50W	10,000	40	7	400	Screw Terminals	C-6	70	2¾	—
-13	4505	Aircraft Navigation	28.0	50W	45,000	11	5	400	Screw Terminals	CC-6	70	2¾	—
-14	4589	Aircraft Cockpit Flood, C.I.M. Flood	28.0	50W	5,000	Trapezoidal		400	Screw Terminals	CC-6	70	2¾	—
-15	4593	Aircraft In-Air Refueling, Flood	28.0	50W	1,500	80	30	400	Screw Terminals	CC-6	70	2¾	—
-16	4825R	C.I.M. Stop/Tail, Red Lens <sup>(98)(108)</sup>	28.0/28.0	50W/18W	200/40	—	—	200/200	3 Screw Terminals	C-2V/C-2V	70	2¾	—
-17	4750	C.I.M. Headlamp	28.0	60W	5,000	36	12	800	Screw Terminals	2C-6	70	2¾	—
-18	4752	C.I.M. Flood	28.0	60W	2,000	50	25	800	Screw Terminals	2C-6	70	2¾	—
-19	4591	Aircraft Landing	28.0	100W	90,000	12	6	25	Screw Terminals	CC-6	70	2¾	—
-20	4594	Aircraft Navigation	28.0	100W	70,000	13	7	300	Screw Terminals	CC-6	70	2¾	—
-21	4627	Aircraft Flood	28.0	100W	3,000	80	30	300	Screw Terminals	CC-6	70	2¾	—
-22	4811	Auto Headlamp, Military	28.0/28.0	110W/55W	—	—	—	400/400	3 Contact Lugs	CC-6/CC-6	76	3	—
-23	4626	Aircraft Taxiing	28.0	150W	25,000	40	9	300	Screw Terminals	CC-6	70	2¾	—
-24	4587	Aircraft Taxiing <sup>(14)</sup>	28.0	250W	40,000	40	13	25	Screw Terminals	CC-8	70	2¾	—
-25	4596	Aircraft Landing <sup>(14)</sup>	28.0	250W	150,000	11	12	25	Screw Terminals	CC-8	70	2¾	—
-26	4350	Electric Truck Work Light <sup>(15)</sup>	36.0	60W	2,100	Trapezoidal		400	Screw Terminals	C-2V	70	2¾	—
-27	4340	Electric Truck Work Light <sup>(15)</sup>	48.0	80W	2,500	Trapezoidal		400	Screw Terminals	C-2V	70	2¾	—

## PAR 46 BULB 146mm (5¾ in) DIAMETER<sup>(2)</sup>

-28	4606	Emergency Lighting	5.7	3.7A	800	80	20	150	Screw Terminals	C-6	95	3¾	—
-29	4019	Tractor	6.2	30W	1,200	Trapezoidal		300 <sup>(23)</sup>	Screw Terminals	C-6	95	3¾	—
-30	4013	Tractor, Flood	6.4	25W	800	80	20	300	Screw Terminals	C-6	95	3¾	—
-31	4535	Spotlamp <sup>(82)</sup>	6.4	30W	95,000	5½	4	100	Screw Terminals	C-6	95	3¾	—
-32	4020	Cycle Headlamp	6.4/6.4	30W/30W	—	—	—	300/300	3 Contact Lugs	C-6/C-6	102	4	—
-33	4031	Auto Headlamp, Military	6.4/6.4	45W/45W	—	—	—	300/500	3 Contact Lugs	C-6/C-6	102	4	—
-34	4078	C.I.M. Flood	6.4	50W	1,600	—	—	500 <sup>(23)</sup>	2 Contact Lugs	C-6/C-6	102	4	—
-35	4531	Auto Headlamp, Military	12.5	40W	30,000	20	5	400	Screw Terminals	C-6	95	3¾	—
-36	4439X	Special Service <sup>(98)</sup>	12.8	18W	900	60	20	300	2 Contact Lugs	C-6	102	4	—
-37	4435	Spotlamp <sup>(82)</sup>	12.8	30W	75,000	5	5	100 <sup>(4)</sup>	Screw Terminals	C-6	95	3¾	—
-38	4420	Cycle Headlamp <sup>(146)</sup>	12.8/12.8	30W/30W	—	—	—	300/300	3 Contact Lugs	C-6/C-6	102	4	—
-39	4412	Fog <sup>(81)</sup>	12.8	35W	11,000	40	7	300	Screw Terminals	C-6	95	3¾	—
-40	4412-1	Fog <sup>(81)</sup>	12.8	35W	11,000	40	7	300	Slip-on Terminals	C-6	95	3¾	—
-41	4412A	Fog, Yellow <sup>(81)</sup>	12.8	35W	8,800	40	7	300	Screw Terminals	C-6	95	3¾	—
-42	4412A-1	Fog, Yellow <sup>(81)</sup>	12.8	35W	8,800	40	7	300	Slip-on Terminals	C-6	95	3¾	—
-43	4413	Tractor, Flood <sup>(134)</sup>	12.8	35W	1,100	80	20	300 <sup>(4)</sup>	Screw Terminals	C-6	95	3¾	—
-44	4413R	Signal, Red Lens <sup>(108)</sup>	12.8	35W	200	80	20	300 <sup>(4)</sup>	Screw Terminals	C-6	95	3¾	—
-45	4419	Tractor <sup>(94)</sup>	12.8	35W	1,600	Trapezoidal		300 <sup>(4)</sup>	Screw Terminals	C-6	95	3¾	—
-46	4427	Tractor, Flood <sup>(35)(107)</sup>	12.8	35W	1,200	80	20	300 <sup>(4)</sup>	Screw Terminals	C-6	95	3¾	—
-47	4436	Signal	12.8	35W	60,000	10	4	300	Screw Terminals	C-6	95	3¾	—
-48	4436R	Signal, Red Lens <sup>(108)</sup>	12.8	35W	9,000	10	4	300	Screw Terminals	C-6	95	3¾	—
-49	H5006	Halogen Auto Headlamp, Low Beam Type 2C1 <sup>(118)*</sup>	12.8/12.8	35W/35W	—	—	—	200/320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	102	4	—
-50	4000	Auto Headlamp, Low Beam Type 2C1 <sup>(26)*</sup>	12.8/12.8	37.5W/60W	—	—	—	200/320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	102	4	—

\*See CAUTION notice contained in this footnote.

# Sealed Beam Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Approx. Initial Maximum Beam C.P.	Approx. Total Spread to 10% Max. C.P. - Base (Degrees)		Rated Average Lab Life (Hours)	Base	Filament Designation	Max. Overall Length		Fig. No.
						Horiz.	Vert.				mm	in	

## PAR 46 BULB 146mm (5 3/4 in) DIAMETER<sup>(2)</sup> (continued)

36-1	4040	Truck Headlamp, Low Beam Heavy Duty, Type 2C1 <sup>(26)(146)</sup>	12.8/12.8	37.5W/60W	—	—	—	300/500 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	102	4	—
-2	H4001	Halogen Auto Headlamp, High Beam Type 1C1 <sup>(118)*</sup>	12.8	37.5W	—	—	—	200 <sup>(4)</sup>	2 Contact Lugs	C-6	102	4	—
-3	4001	Auto Headlamp, High Beam Type 1C1	12.8	37.5W	—	—	—	300 <sup>(4)</sup>	2 Contact Lugs	C-6	102	4	—
-5	H7612	Halogen Fog <sup>(118)*</sup>	12.8	37.5W	15,000	40	7	450	Screw Terminals	C-6	95	3 3/4	—
-6	4434A	School Bus Signal, Amber Lens	12.8	40W	1,000	55	25	100	Screw Terminals	C-6	95	3 3/4	—
-7	4459	Tractor <sup>(94)</sup>	12.8/12.8	40W/40W	1,400/1,300	Trapezoidal		320/320 <sup>(4)</sup>	3 Slip-on Terminals	C-6/C-6	84	3 5/16	—
-8	4431	Auto Headlamp, Military	12.8/12.8	45W/35W	—	—		320/320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	102	4	—
-9	H7609	Halogen Tractor Flood <sup>(118)*</sup>	12.8	50W	2,200	80	20	400 <sup>(4)</sup>	Screw Terminals	C-6	95	3 3/4	—
-10	H7619	Halogen Tractor <sup>(94)(118)*</sup>	12.8	50W	6,000	Trapezoidal		400 <sup>(4)</sup>	Screw Terminals	C-6	95	3 3/4	—
-11	H7621-1	Halogen Auto/Truck Special Service <sup>(109)(118)*</sup>	12.8	50W	20,000	50	7	200 <sup>(4)</sup>	Slip-On Terminals	C-6	95	3 3/4	—
-12	H7635	Halogen Spotlamp <sup>(118)*</sup>	12.8	50W	160,000	6 1/2	4	100	Screw Terminals	C-6	95	3 3/4	—
-13	4467	Cycle Headlamp <sup>(146)</sup>	12.8/12.8	50W/35W	—	—		320/275 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	102	4	—
-14	4492	Snowmobile Headlamp <sup>(98)</sup>	12.8/12.8	60W/60W	21,000/19,000	—		300/300	3 Contact Lugs	C-6/C-6	102	4	—
-15	4478	C.I.M. Flood	13.0	60W	1,600	—		800 <sup>(4)</sup>	2 Contact Lugs	2C-6	102	4	—
-16	4421	Auto/Truck, Special Service <sup>(82)(108)</sup>	13.0	100W	23,000	50	7	300	Slip-on Terminals	C-6	95	3 3/4	—
-17	4537	Aircraft Landing <sup>(20)(83)(98)</sup>	13.0	100W	200,000	11	6	25	Screw Terminals	C-6	80	3 1/8	—
-18	4537-1	Spotlamp <sup>(20)(98)</sup>	13.0	100W	200,000	11	6	25	Slip-on Terminals	C-6	80	3 1/8	—
-19	4537-2	Spotlamp <sup>(20)(98)</sup>	13.0	100W	200,000	11	6	25	Screw Terminals	C-6	80	3 1/8	—
-20	4537X	Marine Spotlamp <sup>(20)(82)</sup>	13.0	100W	200,000	11	6	25	Screw Terminals	C-6	80	3 1/8	—
-21	4705	Spot/Flood	13.0/13.0	100W/100W	30,000/40,000	—		25/25	3 Screw Terminals	C-6/C-6	95	3 3/4	—
-22	4522	Aircraft Landing <sup>(83)</sup>	13.0	250W	290,000	12	10	25 <sup>(138)</sup>	Screw Terminals	C-2 <sup>(92)</sup>	80	3 1/8	—
-23	4633R	School Bus, Signal, Red Lens	14.0	80W	—	—		200	Slip-on Terminals	2C-6	95	3 3/4	—
-24	4636	Signal	14.0	80W	90,000	9	7 1/2	200	Screw Terminals	2C-6	95	3 3/4	—
-25	4636-1	Signal	14.0	80W	90,000	9	7 1/2	200	Slip-On Terminals	2C-6	95	3 3/4	—
-26	4635	Aircraft Landing <sup>(14)</sup>	16.5	450W	325,000	14	15	25	Screw Terminals	C-8	95	3 3/4	—
-27	4530	Signal, Flashing <sup>(86)</sup>	26.0	5.3A	100,000	11	11	50	Screw Terminals	4CC-8	95	3 3/4	—
-28	4578	C.I.M. Flood	28.0	60W	1,600	55	30	800	2 Contact Lugs	2C-6	102	4	—
-29	4880	C.I.M. Headlamp	28.0	60W	6,000	—		800	2 Contact Lugs	2C-6	102	4	—
-30	4579	C.I.M. Headlamp	28.0	80W/60W	24,000/11,000	—		400/400	3 Contact Lugs	CC-6/CC-6	102	4	—
-31	4570	Aircraft Taxiing	28.0	150W	32,000	50	90	300	Screw Terminals	CC-6	95	3 3/4	—
-32	4571	Flood, Special Service	28.0	150W	7,000	80	25	300	Screw Terminals	CC-6	95	3 3/4	—
-33	4572	Auto Flood, Military	28.0	150W	4,500	55	55	300	Screw Terminals	CC-6	95	3 3/4	—
-34	4551	Aircraft Taxiing	28.0	250W	75,000	50	10	25 <sup>(138)</sup>	Screw Terminals	CC-6	95	3 3/4	—
-35	4553	Aircraft Landing <sup>(83)</sup>	28.0	250W	300,000	11	12	25	Screw Terminals	CC-8	80	3 1/8	—
-36	4554	Aircraft Taxiing <sup>(14)</sup>	28.0	450W	90,000	50	16	25	Screw Terminals	CC-8	80	3 1/8	—
-37	Q4554	Halogen Quartzline®, Aircraft Taxiing <sup>(14)(118)*</sup>	28.0	450W	65,000	50	11	100	Screw Terminals	CC-6	67	2 5/8	—
-38	4580	Aircraft Landing <sup>(14)(118)</sup>	28.0	450W	400,000	13	14	10	Screw Terminals	CC-8	95	3 3/4	—
-39	4581	Aircraft Landing <sup>(14)(20)</sup>	28.0	450W	400,000	13	14	10	Screw Terminals	CC-8	80	3 1/8	—
-40	4582	Aircraft/Helicopter Flood <sup>(14)</sup>	28.0	450W	20,000	50	55	10	Screw Terminals	CC-8	95	3 3/4	—
-41	Q4597	Halogen Quartzline®, Aircraft Flood <sup>(14)(118)</sup>	28.0	450W	16,000	60	35	1,000	Screw Terminals	CC-6	84	3 5/16	—
-42	Q4681	Halogen Quartzline®, Aircraft Landing <sup>(14)(118)</sup>	28.0	450W	310,000	15	9	50	Screw Terminals	CC-6	67	2 5/8	—

## PAR 56 BULB 178mm (7 in) DIAMETER<sup>(2)</sup>

-43	6006	Auto Headlamp <sup>(26)</sup>	6.1/6.2	50W/40W	—	—	—	300/500	3 Contact Lugs	C-6/C-6	127	5	—
-44	4545	Marine Searchlight <sup>(82)</sup>	12.0	100W	225,000	9	5	100	Screw Terminals	C-6	114	4 1/2	—
-45	4543	Marine Spotlamp	12.5	100W	250,000	9	5	50	Screw Terminals	C-6	114	4 1/2	—
-46	6014	Auto Headlamp, Type 2D1 <sup>(26)</sup>	12.8/12.8	60W/50W	—	—	—	200/320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	127	5	—
-47	H6024	Halogen Auto Headlamp, Type 2D1 <sup>(118)*</sup>	12.8/12.8	65W/35W	—	—	—	150/320 <sup>(4)</sup>	3 Contact Lugs	C-6/C-6	127	5	—

\*See CAUTION notice contained in this footnote.

See FOOTNOTES, pages 37-39

# Sealed Beam Lamp Specifications

Line No.	GE Lamp No.	Primary Application	Design Volts	Design Watts or Amps	Approx. Initial Maximum Beam C.P.	Approx. Total Spread to 10% Max. C.P. - Base (Degrees)		Rated Average Lab Life (Hours)	Base	Filament Designation	Max. Overall Length		Fig. No.
						Horiz.	Vert.				mm	in	

## PAR 56 BULB 178mm (7 in) DIAMETER<sup>(2)</sup> (continued)

37-1	6015	Auto/Truck Headlamp, Heavy Duty, Type 2D1 <sup>(26)(146)</sup>	12.8/12.8	60W/50W	—	—	—	300/500	3 Contact Lugs	C-6/C-6	127	5	—	
-2	4433A	School Bus Signal, Yellow Lens	14.0/14.0	40W/40W	—	—	—	200/200	3 Contact Lugs	C-6/C-6	127	5	—	
-3	4433R	School Bus Signal Red Lens <sup>(108)</sup>	14.0/14.0	40W/40W	—	—	—	200/200	3 Contact Lugs	C-6/C-6	127	5	—	
-4	4800	Auto Headlamp, Military	28.0/28.0	50W/40W	—	—	—	400/400	3 Contact Lugs	CC-6/CC-6	127	5	—	
-5	4860	Auto Headlamp, Military	28.0/28.0	80W/60W	—	—	—	400/400	Waterproof Terminals	CC-6/CC-6	127	5	—	
-6	4863	Auto Headlamp, Military <sup>(26)</sup>	28.0/28.0	80W/80W	—	—	—	400/400	Waterproof Terminals	CC-6/CC-6	127	5	—	
-7	4541	Aircraft Landing <sup>(34)(83)</sup>	28.0	450W	470,000	—	15	11	25	Screw Terminals	C-13	114	4½	—

## PAR 64 203mm (8 in) DIAMETER<sup>(2)</sup>

-8	4552	Aircraft Landing <sup>(83)</sup>	28.0	250W	500,000	7	8	25 <sup>(138)</sup>	Screw Terminals	CC-8	95	3¾	—
-9	4559	Aircraft Landing <sup>(83)</sup>	28.0	600W	600,000	11	12	25 <sup>(138)</sup>	Screw Terminals	CC-8	95	3¾	—
-10	Q4559	Halogen Quartzline®, Aircraft Landing <sup>(118)*</sup>	28.0	600W	600,000	12	8	100 <sup>(138)</sup>	Screw Terminals	CC-6	95	3¾	—
-11	Q4559X	Halogen Quartzline®, Aircraft Landing <sup>(118)*</sup>	28.0	600W	765,000	11	7½	100 <sup>(138)</sup>	Screw Terminals	CC-6	95	3¾	—
-12	Q4629	Halogen Quartzline®, Aircraft Logo Light <sup>(118)*</sup>	28.0	600W	20,000	55	35	1000	Screw Terminals	CC-6	122	4 <sup>13</sup> / <sub>16</sub>	—
-13	4557	Aircraft Landing/Taxiing <sup>(14)</sup>	28.0/28.0	1,000W/400W	100,000	540,000	—	25/100 <sup>(138)</sup>	3 Screw Terminals	CC-8/C-6	95	3¾	—
-14	4555	Aircraft Landing <sup>(14)(119)</sup>	115.0	1,000W	600,000	20	11	25 <sup>(138)</sup>	Screw Terminals	—	95	3¾	—

## Footnotes

<sup>(2)</sup> Approximate.

<sup>(3)</sup> Useful hours.

<sup>(4)</sup> At 14 volts.

<sup>(7)</sup> Entire bulb selected for minimum glass imperfections.

<sup>(8)</sup> Bulb top selected for minimum glass imperfections.

<sup>(10)</sup> At 5 volts.

<sup>(11)</sup> **CAUTION: This halogen-cycle bulb could shatter if scratched or damaged. Use appropriate protection when handling, using, or disposing. Use in fixtures designed for the high temperature required for proper operation and that offer protection in case the bulb shatters. Turn power off when changing lamp. Allow lamp to cool before removal. For satisfactory performance: (1) limit seal and outer lead wire temperature to 350°C or lead wire deterioration may occur; (2) maintain a minimum bulb wall temperature of 250°C for operation of the halogen cycle; (3) operate at design volts; (4) if further processing of the leads, such as bending, welding, crimping, etc. is required, care must be taken to assure that the lamp seal area is not strained, cracked, chipped, or otherwise damaged or premature lamp failure may occur.**

<sup>(12)</sup> Average overall length.

<sup>(13)</sup> Supported.

<sup>(14)</sup> This lamp is specially designed for a particular purchaser and may not be suitable for other uses because of its excessive wattage requirements for the bulb size. Consult the nearest GE Lamp Sales Office for application information.

<sup>(15)</sup> This lamp is specially designed for a particular purchaser and may not be suitable for other uses because of its limited mechanical strength. Consult the nearest GE Lamp Sales Office for application information.

<sup>(17)</sup> Filament shielded.

<sup>(18)</sup> Rounded cover.

<sup>(20)</sup> Slightly rounded cover.

<sup>(21)</sup> Top of bulb light outside frosted.

<sup>(23)</sup> At 7 volts.

<sup>(26)</sup> Lower beam filament shielded.

<sup>(32)</sup> Designed and rated for operation in supplementary cathode preheat circuits for which specifications are available from the lamp manufacturer.

<sup>(33)</sup> Connections of major and minor fil. to base are reversed from those for automotive lamps with Double Contact Index bases.

<sup>(34)</sup> Clear round window in reflector below base terminals.

<sup>(35)</sup> Outside transparent red coating on reflector. Transparent round window in reflector below base terminals.

<sup>(38)</sup> Actual life depends upon use and environment. Theoretical design average life is 100,000+ hours.

<sup>(42)</sup> Actual life depends upon use and environment. Theoretical design average life is 25,000 hours.

<sup>(43)</sup> Actual life depends upon use and environment. Theoretical design average life is 50,000 hours.

<sup>(44)</sup> At 6.6 volts.

<sup>(45)</sup> Threaded base approximately <sup>3</sup>/<sub>16</sub>" diameter by approximately <sup>1</sup>/<sub>4</sub>" long.

<sup>(52)</sup> Light center length measured from open end of base to filament center. Three-part base with inner sleeve approximately <sup>7</sup>/<sub>32</sub>" long, and with outer part of base threaded and knurled.

<sup>(53)</sup> Side solder within 25° of plane of filament. With lamp horizontal and side solder in uppermost position, the following beam pattern limits are provided on a surface perpendicular to the base axis and located <sup>3</sup>/<sub>8</sub>" from end of bulb: 750 footcandles minimum over a <sup>1</sup>/<sub>8</sub>" diameter circle centered on base axis. While entire beam may not be centered on base axis, it will fall between two parallel vertical lines <sup>5</sup>/<sub>16</sub>" apart which are centered on the base axis.

# Footnotes

- (67) Side solder within 25° of plane of filament. With lamp horizontal and side solder in uppermost position, the following beam pattern limits are provided on a surface perpendicular to the base axis and located  $\frac{3}{8}$ " from end of bulb: 750 footcandles minimum over a  $\frac{1}{16}$ " diameter circle centered on base axis. While entire beam may not be centered on base axis, it will fall within a rectangle  $\frac{5}{16}$ " by  $\frac{3}{8}$ " high whose center is on base axis.
- (68) Side solder within 25° of plane of filament. With lamp horizontal and side solder in uppermost position, the following beam pattern limits are provided on a surface perpendicular to the base axis and located  $\frac{3}{8}$ " from end of bulb: 750 footcandles minimum over a  $\frac{1}{16}$ " diameter circle centered on base axis. While the entire beam may not be centered on base axis, it will cover at least a  $\frac{1}{8}$ " circle centered on the base axis.
- (69) Lead wires in upward position.
- (70) Consult nearest GE Lamp Sales Office for application information.
- (71) Tolerance for light center length  $\pm \frac{1}{32}$ " and axial alignment  $\pm .050$ ".
- (72) Burning position—base up or base down only.
- (73) Uses lens-end TL-3 $\frac{1}{4}$  bulb. Provides 7,000 to 11,000 footcandles in a  $\frac{1}{4}$ " diameter spot at  $\frac{1}{8}$ " from end of bulb.
- (74) Not recommended for new OEM applications—suggested for new design are wedge base lamps such as GE Lamp Numbers 159, 259, and 161.
- (75) These lamps produce a random flashing indication only. While the majority should flash between 40-160 flashes per minute at normal room temperature, some will be outside this range. As ambient temperature and/or input voltage changes, the flash rate may vary considerably. At rated voltage and room temperature most lamps will flash within 60 seconds.
- (76) Use these lamps with auxiliary equipment specially designed to produce proper electrical values conforming to established specifications. For total load, add auxiliary watts to lamp watts.
- (77) **CAUTION: This is a low-voltage lamp and is not for use in ordinary household circuits. The bulb may shatter if used in circuits of 110-120 volts or higher.**
- (78) **CAUTION: While this lamp is carefully inspected before shipment, the glass bulb may crack when subjected to abnormal pressure. Therefore, it is recommended that the bulb be grasped with a cloth or glove when removing or installing the lamp in a tight fitting socket.**
- (79) This butt seal wire terminal lamp is normally considered a subassembly. The glass-to-metal seal and glass tip are fragile. Therefore, any bending or soldering of the wire terminal closer than  $\frac{1}{8}$ " from the glass should be avoided since the bending or heat can cause leaks in the seal. Solderability may be adversely affected by storage for an extended period in excess of six months or by storage in a high humidity environment. Lamps with tinned leads would not be subject to these storage restrictions.
- (80) Estimated. Based on limited test information.
- (81) GE Lamp #385 is not interchangeable with other manufacturers' lamp #385. ANSI specifies .38" light center length and .63" maximum overall length.
- (82) Life shown is AC voltage only. DC life will be approx. 50% of AC.
- (83) E.F.C. values will vary depending upon type of equipment used for measurement.
- (84) 90° spherical shield above filament which masks all upward direct light.
- (85) Hemispherical shield in front of filament which masks all direct light.
- (86) 120° cylindrical shield positioned to the side of the filament.
- (87) Filament construction designed especially for military flashing signal service. Consult GE Lamp Product Planning and Application before recommending for other applications.
- (88) Filament segments parallel.
- (89) Trapezoidal beam, spread to 10% measured through the center of the beam pattern.
- (90) Lens stippled.
- (91) Not for highway use.
- (92) The coating on this lamp is made and applied using high-quality materials. Like most coatings, it may fade or peel over a period of time, and care should be taken to avoid damage caused by scratching or abrasion. Also, the lamp should be checked from time to time to ensure that the emission of the proper color light has been affected.
- (93) The process of applying this permanent red finish may impart a slight iridescence and gradation of color to the lens, but this will not affect the lamp's performance.
- (94) Special fixture required for highway use.
- (95) To be used with a variable load flasher in applications where bulb outage indication is not required, or with an appropriate fixed load flasher. Bulb outage indication not required on a truck, bus, or multi-purpose passenger vehicle 80 or more inches in overall width; on a truck that is capable of accommodating a slide-in camper; or any vehicle equipped to tow trailers. Flash rate may be altered if used with incorrect fixed load flasher.
- (96) This is a flange seal wire terminal lamp. When unbased lamps such as these are handled and wired into a device, damage can be kept to a minimum by allowing sufficient clearance so that no physical strain or excessive heat is placed on the exhaust tube, exhaust tube tip, or glass seal; by taking care in mounting lamp in equipment so that any material touching the glass is compatible in thermal expansion; and by avoiding excessive tensile strain on the lead wires.
- (97) **CAUTION: This halogen-cycle bulb could shatter if scratched or damaged. Use appropriate protection when handling, using or disposing. Use in fixtures designed for the high temperature required for proper operation and that offer protection in case the bulb shatters. Turn power off when changing lamps. Allow lamp to cool before removal. For satisfactory performance: (1) limit seal and outer lead wire temperature to 350°C or lead wire deterioration may occur; (2) maintain a minimum bulb wall temperature of 250°C for operation of the halogen cycle; (3) remove grease or fingerprints from bulb by cleaning with a grease-free solvent; (4) operate at design volts.**
- (98) Life tests are performed on DC voltage only.
- (99) Listed with ANSI as TL-1 $\frac{3}{4}$  bulb.
- (100) **CAUTION: This sealed beam lamp has in inner halogen-cycle bulb. This pressure-filled inner bulb could shatter if scratched or damaged. If the outer sealed envelope is intact, this will be no problem. If the outer sealed envelope is broken, however, do not operate the lamp. Instead, carefully remove and dispose of the lamp by placing it in a used headlamp carton or other closed container. INFORMATION NOTICE: The inner bulb will continue to burn if the outer envelope is cracked or broken. Cracked or broken envelopes will result in reflector deterioration such as the discoloration and disappearance of the aluminized coating. This deterioration will also reduce light output. Promptly replace any sealed beam lamp showing reflector deterioration.**

# Footnotes

- (119) **CAUTION: This lamp operates at 120 volts. Use only in properly insulated housings designed for this type lamp. Turn power off when installing or removing lamps.**
- (120) This lamp is specially designed for a particular purchaser and may not be suitable for other uses because of its non-permanent color coating.
- (121) To minimize the possible adverse effects on lamp life due to excessive wattage in relationship to bulb size: Burn Base Down to Base 45° Above Horizontal. Regardless of burning position, this excessive wattage will abnormally decrease light output during lamp life.
- (122) This is a wire terminal lamp. The glass-to-metal seal (and tip where applicable) are susceptible to damage by thermal shock, and soldering or welding within 1/8" of the glass should be avoided as glass cracks and air leaks may develop. Solderability may be adversely affected by storage for an extended period in excess of six months or by storage in a high humidity environment.
- Lamps with tinned leads would not be subject to these storage restrictions. Nickel-plated leads are not recommended for soldering; however, their ability to be welded is not affected by these storage restrictions.
- (124) .028" metal pins spaced 4 mm (.157") apart. GE's all-glass two-pin lamps might not be compatible with all G-4 sockets since many sockets do not provide clearance for the exhaust tip.
- (126) Intermittent service only.
- (127) LCL measured to top of filament.
- (128) Minimum 1/4" spot at .100" from bulb top.
- (129) Leads cleaned and solderable.
- (130) Subminiature wedge base lamps under 12 volts have copper-clad outer lead wires to decrease contact resistance at the expense of corrosion resistance in severe environments.
- (131) **CAUTION: This halogen-cycle lamp is pressurized and may shatter. Do not operate lamp in excess of rated voltage as this will increase lamp pressure and the risk of shattering. Protect lamp against abrasions and scratches and against liquids when lamp is operating.**
- To guard against personal injury, wear protective eyeglasses and clothing when handling lamp. Provide protective screen or shield with equipment in which lamp is installed or used. Turn power off when installing and before removing lamp. Dispose of lamp with care.
- Because of heat generated by lamp, use only in sockets and housing designed to withstand the lamp's high operating temperatures. Do not operate in proximity to substances or materials that are flammable or adversely affected by heat or drying. Allow lamp to cool before removing.
- If further processing of the leads, such as bending, welding, crimping, etc., is required, care must be taken to assure that the lamp seal area is not strained, cracked, chipped, or otherwise damaged, or premature lamp failure may occur. For satisfactory performance: (1) limit seal and outer lead wire temperature to 350°C or lead wire deterioration may occur; (2) maintain a minimum bulb wall temperature of 250°C for operation of the halogen cycle; (3) operate at design volts.
- (132) Paint may peel, craze or discolor when subjected to excessive moisture, heat, and freezing in housings with plugged drain holes or which otherwise leak or trap moisture.
- (133) Satisfactory for use when noise requirements apply.
- (134) Wide flood beam lamps are used for forward illumination as well as for lighting implements at the rear of the tractor.
- (135) **CAUTION: This lamp is provided with an outside aluminized coating. This coating will conduct electricity and**

may be a shock hazard if (1) the "hot" (ungrounded) side of the line is energized and (2) the voltage is high enough to produce a shock. Never install or remove lamp unless "hot" side of line is turned off. These lamps should NOT be operated in series which may result in higher than design voltage at the lamp unless an electrical interlock is provided to make sure that "hot" side of line is off while servicing and lamps are so located that they cannot be touched when circuit is on.

- (137) Not interchangeable with lamp 4409. This lamp must be used in a housing equipped with a 32 candlepower bulb (1156) that provides the proper light for the tail lamp application. It should not be used in housings that contain a 15 candlepower bulb (1003 or 1004).
- (138) Life under specified test conditions: Cycled 5 minutes on and 5 minutes off.
- (140) At 3" from bulb end, beam should completely cover a 1/2" diameter circle and not extend outside a 3" diameter circle (both circles concentric and on bulb axis).
- (141) At 10 mm from bulb end, beam must cover an 8 mm diameter circle centered on the bulb axis.
- (142) Not interchangeable with lamp 4603. The 4603X lamp must be used in a housing equipped with a 21 candlepower bulb (1141) that provides the light for the tail lamp application. It should not be used in housings that contain a 15 candlepower bulb (1003 or 1004).
- (143) Not interchangeable with lamp 4603X. Do not use in a housing that contains a 21 candlepower bulb (1141) or a 32 candlepower bulb (1156) for tail lamp use, or premature fading or peeling of the red coating will occur. The lamp should be checked from time to time to ensure that the emission of the proper color light has not been affected. If the emission has been affected, the lamp should be replaced to ensure that you have the proper color light at all times.
- (144) Potentially limited availability in large quantities at certain times of the year. Contact your GE Lamp Representative for current availability information.
- (145) **CAUTION: This halogen-cycle lamp is pressurized and care should be taken to reduce risk of shattering. Do not operate lamp in excess of rated voltage as this will increase lamp pressure. Protect lamp against abrasions and scratches and against liquids when lamp is operating.**
- To guard against personal injury, use only in housings with a lens cover. Wear protective eyeglasses and clothing when handling lamp. Turn power off when installing and removing lamp. Dispose of lamp with care.
- Because of heat generated by lamp, use only in sockets and housings designed to withstand the lamp's high operating temperatures. Do not operate in proximity to substances or materials that are flammable or adversely affected by heat or drying. Allow lamp to cool before removing.
- The reflector has an unprotected aluminized surface. Corrosive, dusty, or moist environments may cause the reflector to degrade causing a reduction of light output. Periodically check the aluminized surface for degradation and replace if any occurs. For satisfactory performance: (1) avoid touching aluminized surface of reflector as it may cause degradation; (2) operate at design volts; (3) maintain a minimum bulb wall temperature of 250°C for operation of the halogen cycle.
- (146) Ceramic bridge.
- (147) Differs from ANSI.
- (151) Alternative construction may be adhesive seal.
- (152) Contains seating plane for special application.

# Miniature and Subminiature Lamp Dimensions

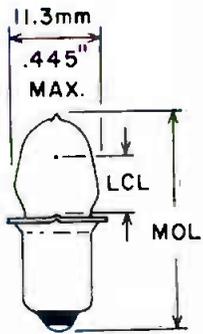


Fig. 1  
B-3 1/2"

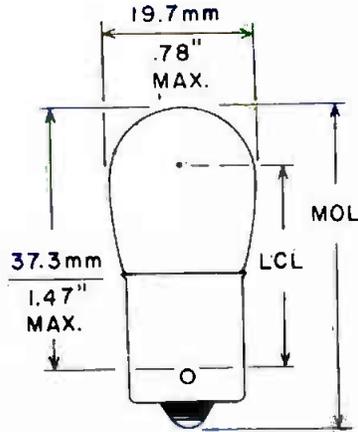


Fig. 2  
B-6

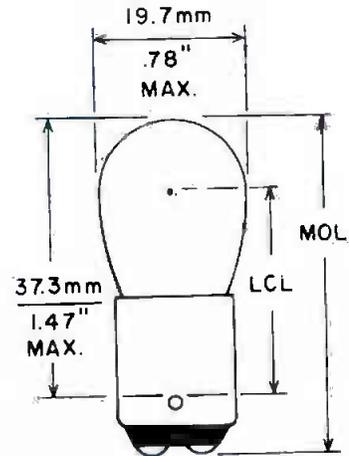


Fig. 3  
B-6

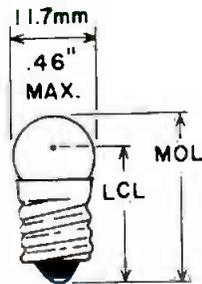


Fig. 4  
G-3 1/2"

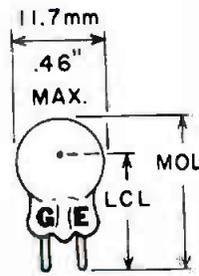


Fig. 5  
G-3 1/2"

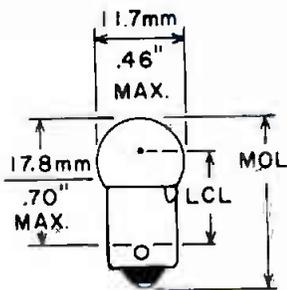


Fig. 6  
G-3 1/2"

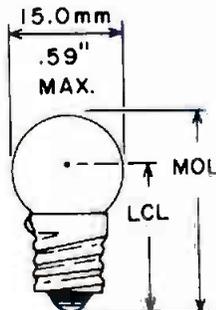


Fig. 8  
G-4 1/2"

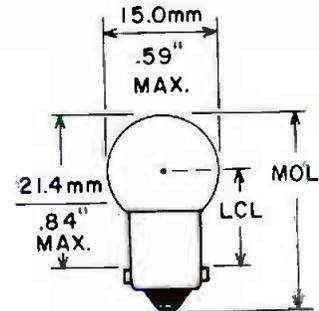


Fig. 9  
G-4 1/2"

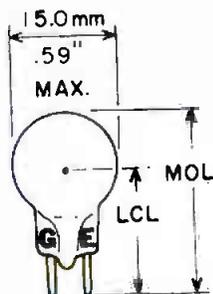


Fig. 10  
G-4 1/2"

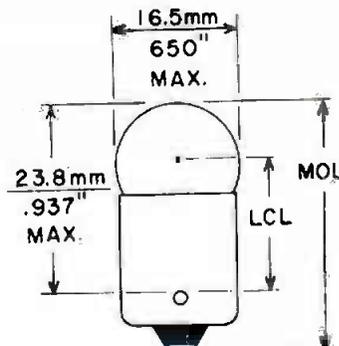


Fig. 11  
G-5

# Miniature and Subminiature Lamp Dimensions

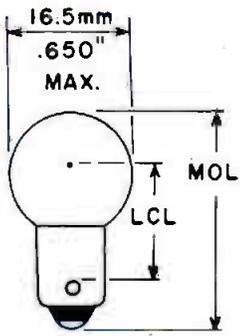


Fig. 12  
G-5

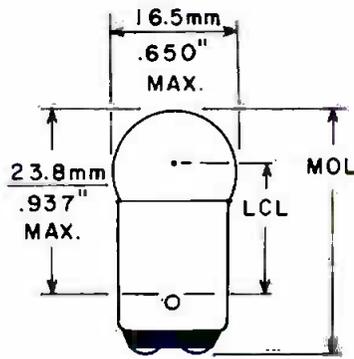


Fig. 13  
G-5

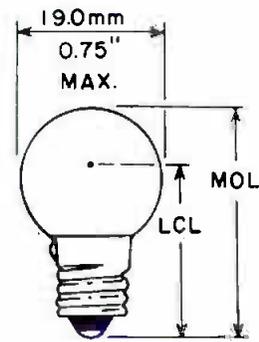


Fig. 15  
G-6

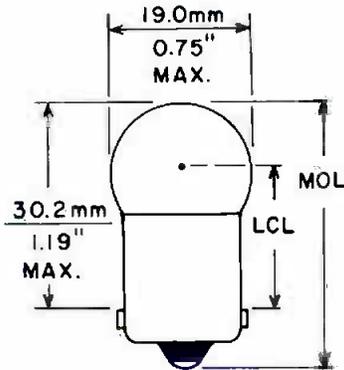


Fig. 16  
G-6

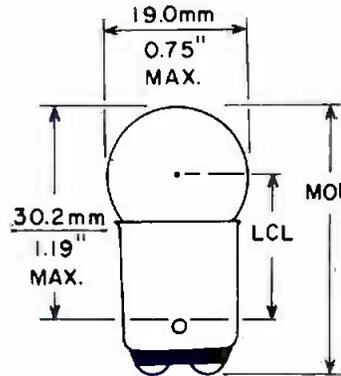


Fig. 17  
G-6

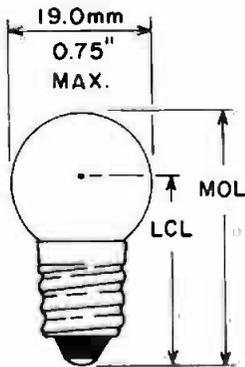
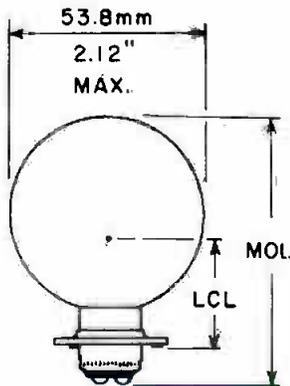
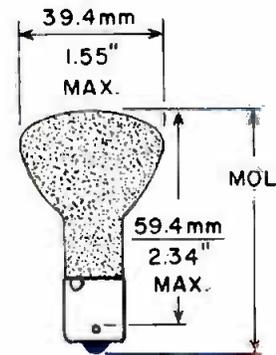


Fig. 18  
G-6



(1/2 size) Fig. 22  
G-16 1/2"



(1/2 size) Fig. 23  
R-12

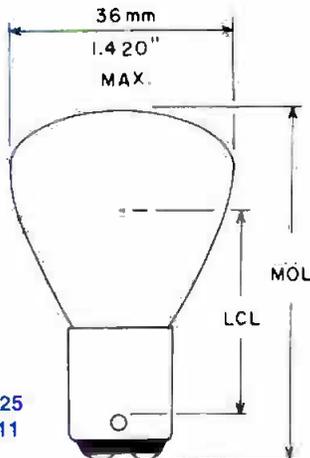


Fig. 25  
RP-11

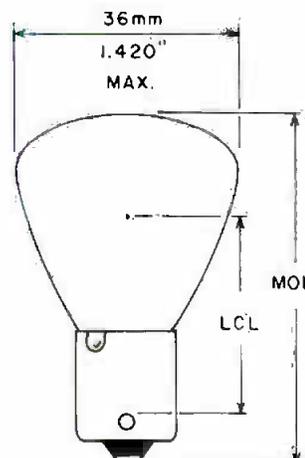


Fig. 26  
RP-11

# Miniature and Subminiature Lamp Dimensions

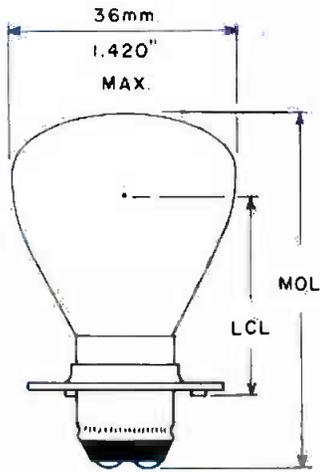


Fig. 27  
RP-11

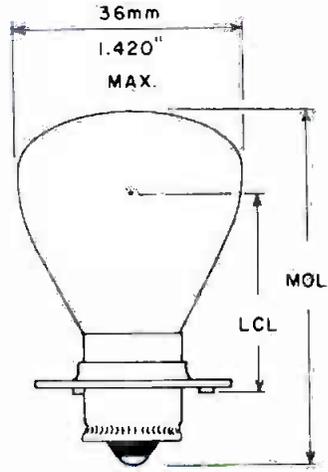


Fig. 27a  
RP-11

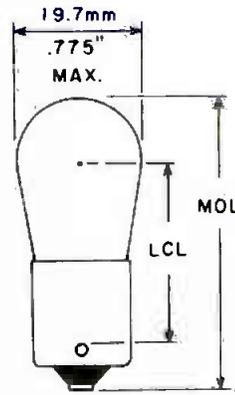


Fig. 28  
S-6

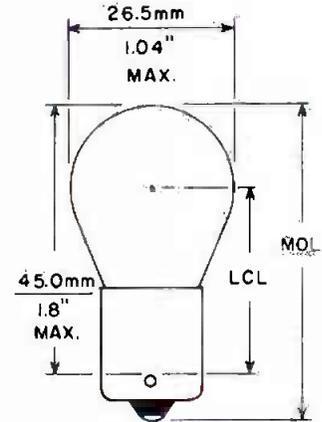


Fig. 29  
S-8

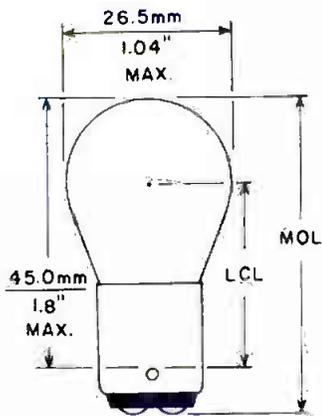


Fig. 30  
S-8

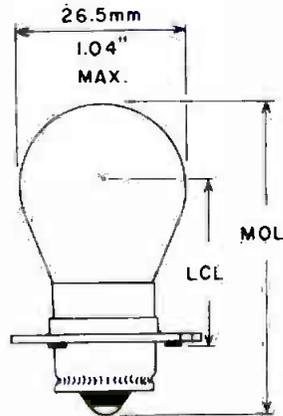


Fig. 31  
S-8

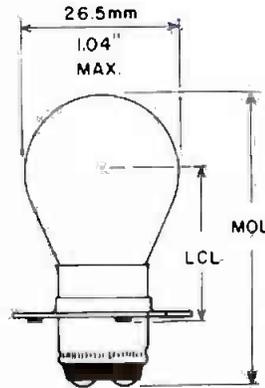


Fig. 32  
S-8

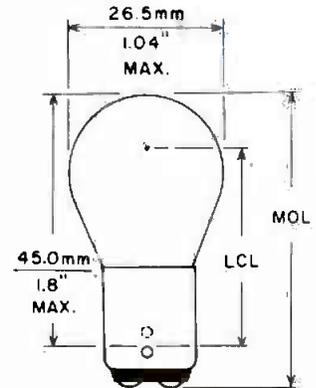


Fig. 33  
S-8

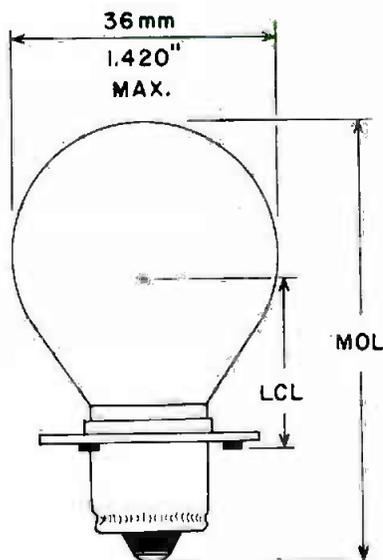


Fig. 34  
S-11

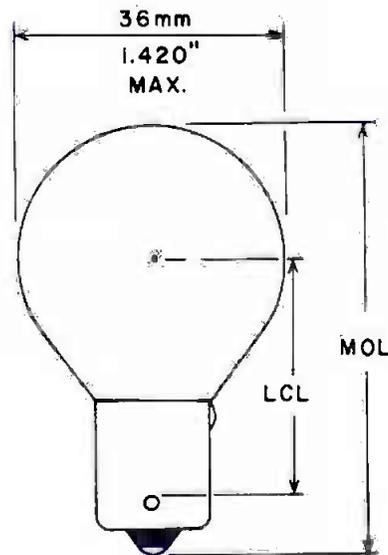


Fig. 35  
S-11

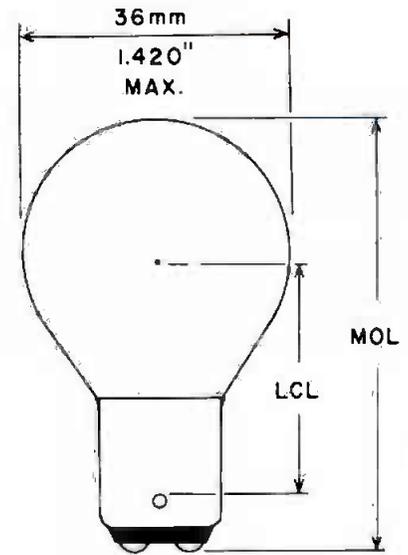


Fig. 36  
S-11

# Miniature and Subminiature Lamp Dimensions

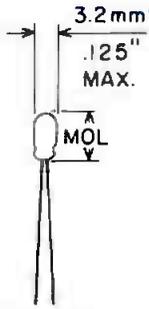


Fig. 37  
T-1

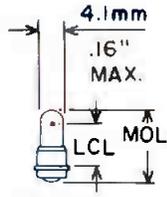


Fig. 38  
T-1

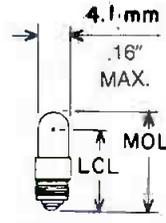


Fig. 39  
T-1 1/4"

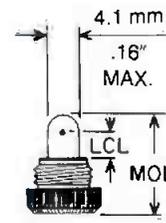


Fig. 40  
T-1 1/4"

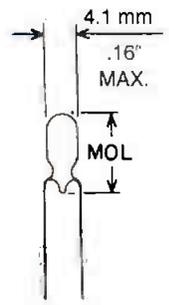
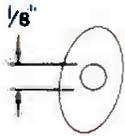
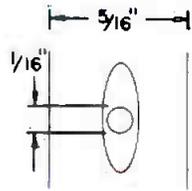


Fig. 41  
T-1 1/4"

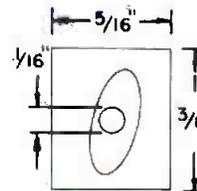
## TYPICAL BEAM PATTERNS



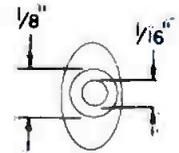
LAMP #2124D



LAMP #252 #253



LAMP #253X



LAMP #261 #8261

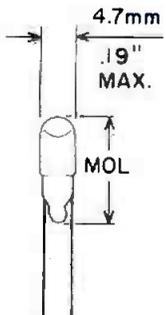


Fig. 42  
TL-1 1/2"

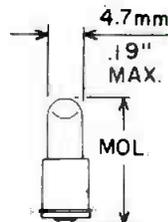


Fig. 44  
TL-1 1/2"

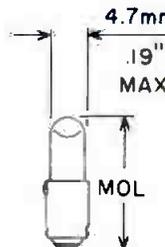


Fig. 45  
TL-1 1/2"

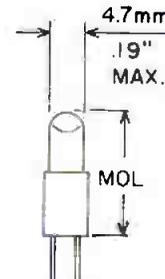


Fig. 46  
TL-1 1/2"

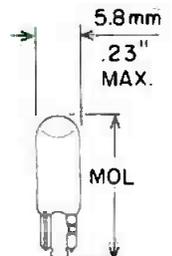


Fig. 48  
TL-1 1/4"

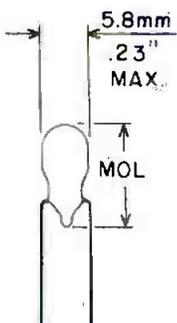


Fig. 49  
T-1 3/4"

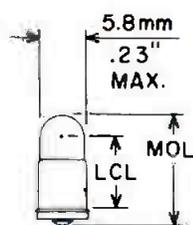


Fig. 50  
T-1 3/4"

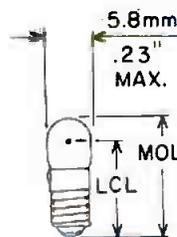


Fig. 51  
T-1 3/4"

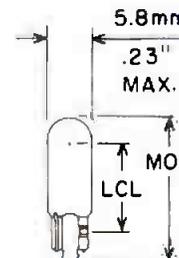


Fig. 52  
T-1 3/4"

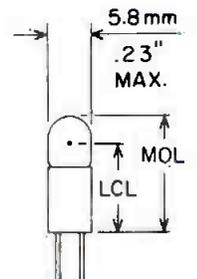


Fig. 53  
T-1 3/4"

# Miniature and Subminiature Lamp Dimensions

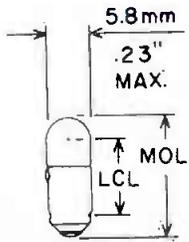


Fig. 54  
T-1 1/4"

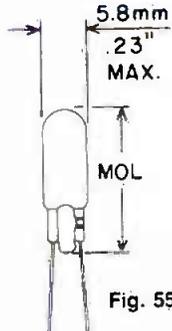


Fig. 55  
T-1 1/4"

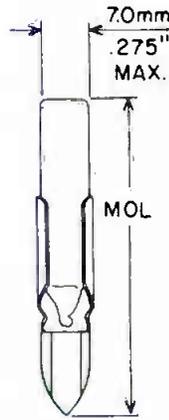


Fig. 58  
T-2

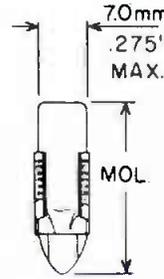


Fig. 59 T-2  
TEL. SLIDE  
ANSI NO. 5

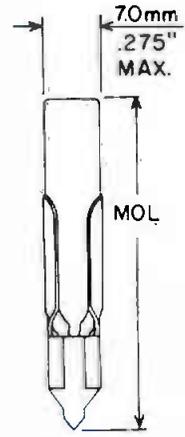
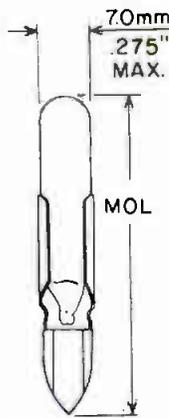
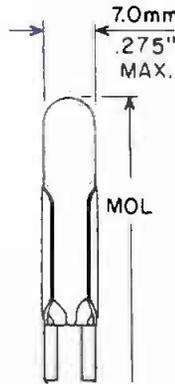


Fig. 60  
T-2



SPECIAL  
ROUND END BULB  
TEL. SLIDE ANSI ND.1  
Fig. 61  
T-2



ANSI NO.2  
Fig. 62  
T-2

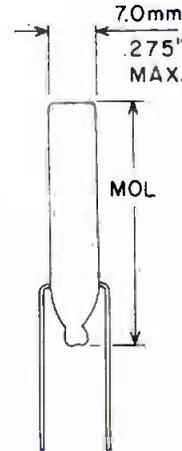


Fig. 63  
T-2

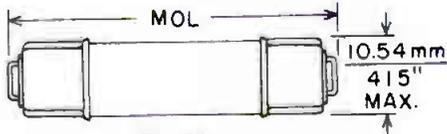


Fig. 70  
T-3

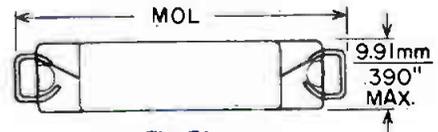


Fig. 71  
T-3

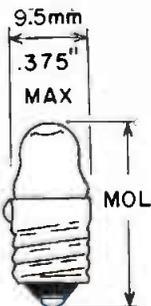


Fig. 74  
TL-3

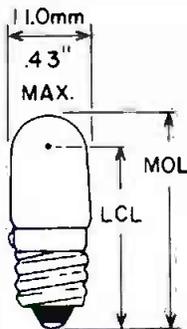


Fig. 75  
T-3 1/4"

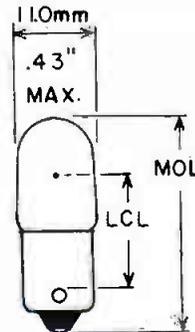


Fig. 76  
T-3 1/4"

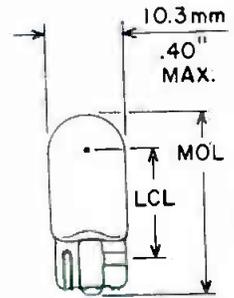


Fig. 77  
T-3 1/4"

# Miniature and Subminiature Lamp Dimensions

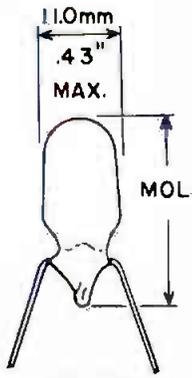


Fig. 78  
T-3/4"

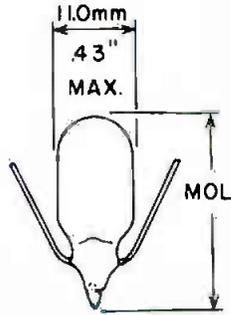


Fig. 79  
T-3/4"

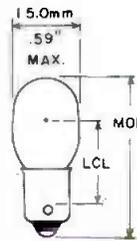


Fig. 83  
T-4 1/2"  
(1/2 size)

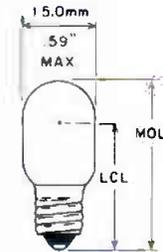


Fig. 84  
T-4 1/2"  
(1/2 size)

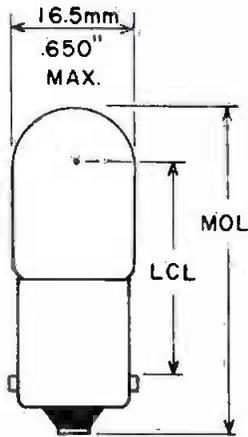


Fig. 85  
T-5

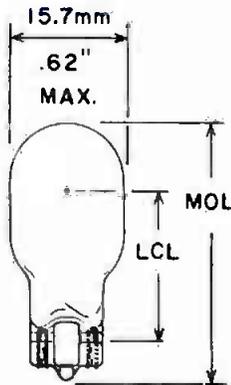


Fig. 86  
T-5

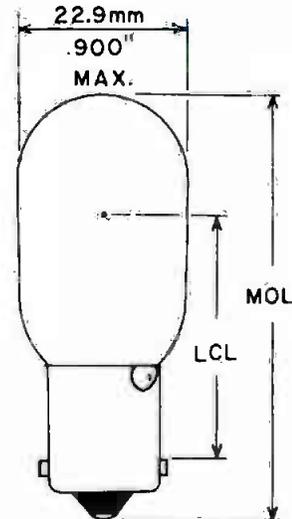


Fig. 87  
T-7

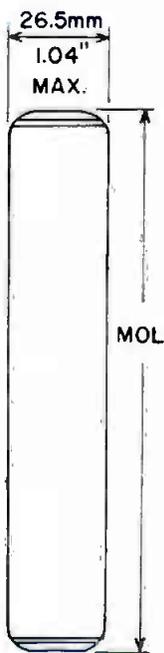


Fig. 89  
T-8  
(1/2 size)

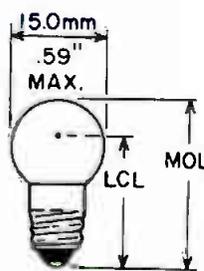


Fig. 91  
G-4 1/2"  
(Not to Scale)

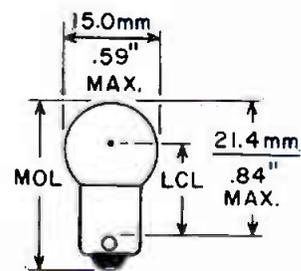


Fig. 92  
G-4 1/2"  
(Not to Scale)

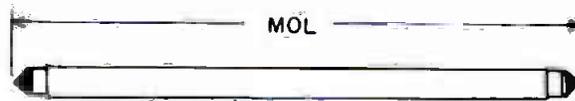


Fig. 93

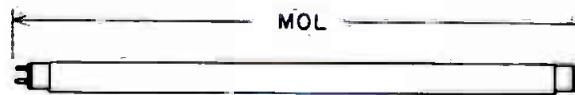


Fig. 94  
T-5 (Not to Scale)

# Halogen Cycle Lamp Dimensions

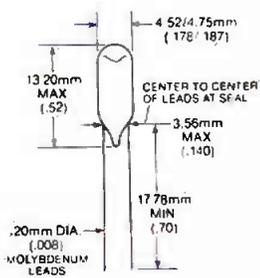


Fig. 95/TL-1 1/2

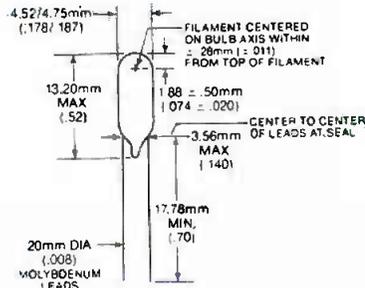


Fig. 96/T-1 1/2

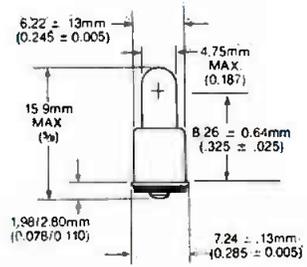


Fig. 97/T-1 1/2

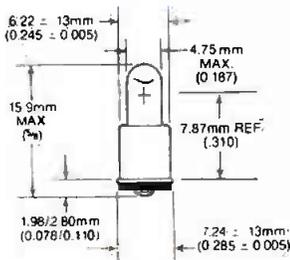


Fig. 98/T-1 1/2

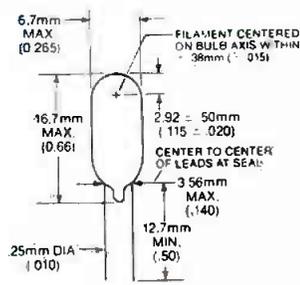


Fig. 99/T-2

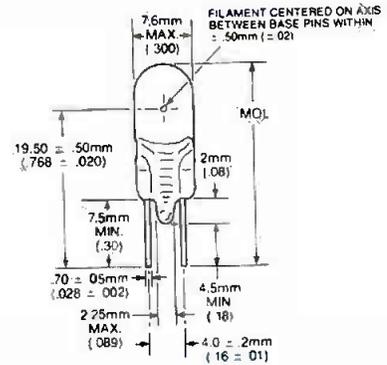


Fig. 100/T-2 1/4

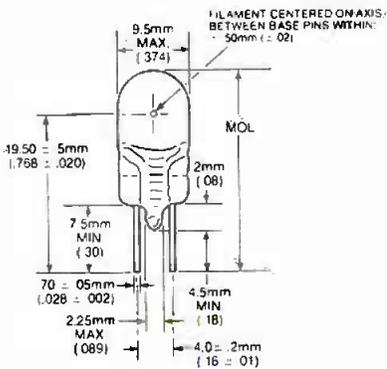


Fig. 101/T-2 3/4

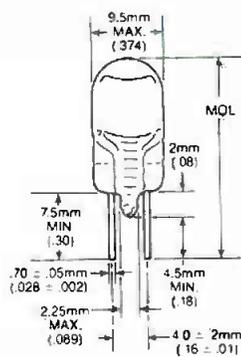


Fig. 102/T-2 3/4

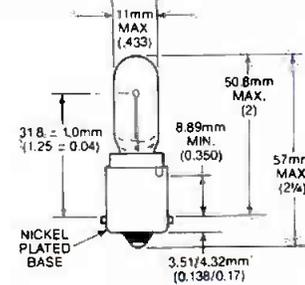


Fig. 103/T-3 1/4

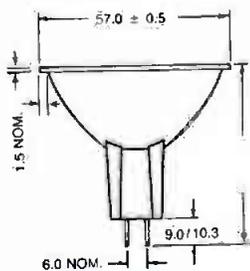


Fig. 104/PAR-18

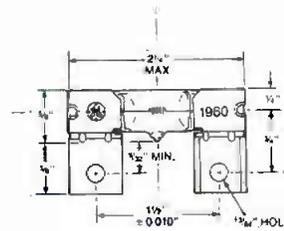


Fig. 105/T-4

# Halogen Cycle Lamp Dimensions

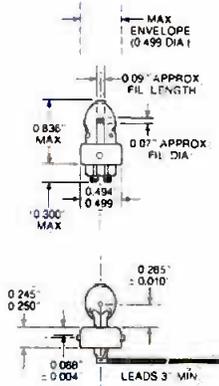


Fig. 106/T-3

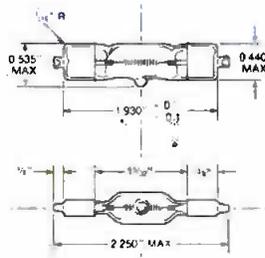


Fig. 107/T-3

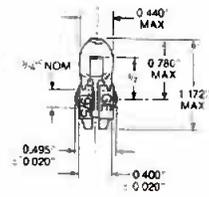


Fig. 108/T-3

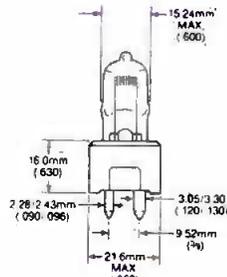


Fig. 109/T-4

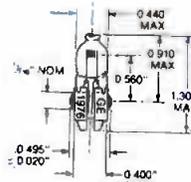


Fig. 110/T-3

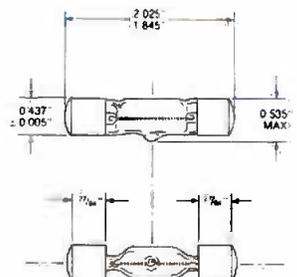


Fig. 111/T-3

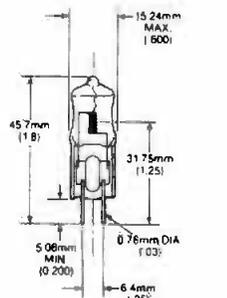


Fig. 112/T-4

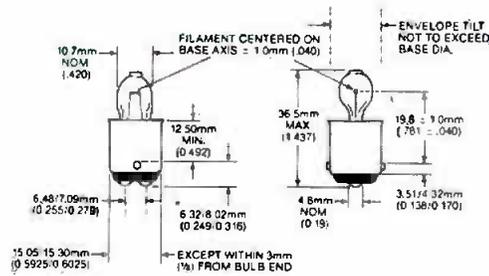


Fig. 113

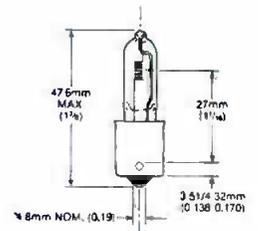


Fig. 114/T-3

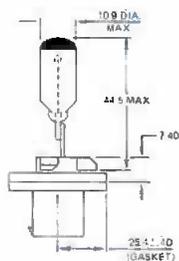
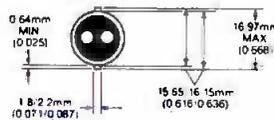


Fig. 115/T-3/4

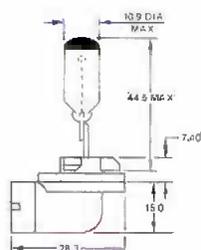


Fig. 116/T-3/4

NOTE: These drawings show the correct bulb and base configurations, but not necessarily the correct filament, filament support, dimensions, or lead orientation. See Table of Lamp Specifications for dimensions.

# Table of Lamp Applications

## MINIATURE AND SUBMINIATURE LAMPS

Lamp Number	Line Number	Lamp Number	Line Number
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### AGRICULTURE

257	21-4 30-14	1895R	21-6
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### AIRCRAFT

301	21-11	1958	29-24
302	21-12	1959	29-25
303	21-31		15-20
304	21-32	1962	14-35
305	23-14		27-5
305IF	23-15	1962DX	15-3
306	23-16		27-8
307	23-25	1964	27-23
307IF	23-26		15-13
307R	23-27	1967	27-22
307SB	23-28		15-14
308	23-29	1968	27-21
309	24-6		15-9
309IF	24-7	1970	27-24
310	24-8		15-11
311	24-9	1970X	27-25
311R	24-10		15-12
313	29-15	1975	27-12
315	23-36		15-7
316	28-12	1976	27-15
323	24-20		15-8
327	25-32	1977	27-4
327AS15	25-33		14-34
328	25-3	1978X	27-10
328AS-10	25-4		15-5
705	23-17	1982	27-20
767	14-10 26-26	1983	15-10 29-22
1308	20-21		15-17
1309	20-20	1986	29-27
1315	21-9		15-22
1317	20-14	1987	29-26
1383	21-38		15-21
1384	21-37	1988	27-11
1385	21-40		15-6
1388	21-39	2232	23-23
1414	29-33	2232SB	23-24
1495	29-34	2233	23-32
1495X	29-35	3011	24-11
1534	22-12	5004CW	30-16
1563	23-33	5004WW	30-17
1665	23-34	5008CW	30-20
1665IF	23-35	5008R	30-21
1680	22-16	5008WW	30-22
1680X	22-17	5013CW	30-24
1683	23-39	5013R	30-25
1691	23-20	5013WW	30-26
1691IF	23-21	5104WW	30-18
1692	23-22	5106WW	30-19
1726X	24-5	5108WW	30-23
1777	22-39	5113WW	30-27
1818	29-4	ML20/	
1864	29-16	OF-28	30-9
1939X	30-7	ML20/	
1940	30-4	R-28	30-8

Lamp Number	Line Number	Lamp Number	Line Number
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### COMMUNICATIONS

#### Business Machines

75X	11-2 25-46	345 378	25-2 25-10
252	24-26	382	25-21
253	24-27	386	25-20
253X	24-28	2124D	24-25
261	24-29	8261	24-30
344	25-14		

#### Indicator

10	20-26	583D	24-22
11	24-34	585	11-39
	11-1		29-7
12	20-29	612	20-30
15	20-51	656	11-40
18	25-17		29-8
	11-7	657	11-41
19	20-33		29-12
40	28-19	680	24-12
43	28-4	683	24-13
44	28-25	683AS15	24-14
47	28-20	685	24-15
49	28-2	715	24-16
56X	25-1	718	24-17
	11-3	718AS15	24-18
73E	25-23	755	28-14
	11-9	757	29-10
79	25-5	1302	28-13
	11-4	1450	20-39
84	11-5	1487	28-43
	25-7	1490	28-5
85	11-14	1762D	25-30
	25-43	1764D	25-31
85E	11-15	1810	28-26
	25-44	1813	29-2
86	11-6	1815	28-44
	25-12	1819	29-6
147	11-24	1820	29-13
	28-28	1822	29-19
238	28-27	1828	29-20
259	11-22	1829	29-9
	28-23	1835	29-21
267	28-16	1843	29-5
	30-12	1847	28-18
268	24-35	1866	28-22
327R	25-34	1869D	25-13
330	25-18	1886	29-29
334	25-35	1892	29-3
335	25-38	2112D	25-8
336	25-19	2121D	27-29
352X	20-27	2157D	28-15
370	25-29	2158D	24-37
381	25-11	2159D	28-41
385	25-45	2162D	25-26
387	25-40	2169D	24-36
388	25-41	2174D	25-15
394	25-16	2180D	25-6
400	11-42	2181D	25-9
	29-14	2187D	25-39
406	20-42	2188U	29-11
	30-10	2700	14-3
			24-24
464	11-43	7327	25-36
	29-17	7378	25-37
509K	21-28	7387	25-42

Lamp Number	Line Number	Lamp Number	Line Number
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### Telephone

6A1	26-1	35A2	26-14
6C1	26-2	48C1	26-15
10C5	26-3	48C2	26-16
12A1	26-4	48D1	26-17
24B1	26-5	48D2	26-18
24D1	26-6	55B1	26-19
24E1	26-7	55C1	26-20
24E2	26-8	55C2	26-21
24EX	26-10	60A1	26-22
24F5	26-9	325	24-19
24X	26-11	2137D	26-12
35A1	26-13		

### CONSTRUCTION

#### C.I.M. Mine

356	20-41	1873	29-18
456	21-8	1846	28-1

### EMERGENCY LIGHTING

#### Barricade

280	11-25 28-30	1408 1850	28-31 28-8
285	11-17 28-7	1850W 1906	28-9 28-6
820	11-19 28-11		

#### Building

14	20-25	908	11-48
64	21-17		29-44
82	21-15	909	11-46
500	29-30		29-42
605	20-49	914	11-44
774	14-13		29-40
	26-29	915	11-49
783	14-14		29-46
	26-30	917	11-31
784	14-7		29-47
	26-23	926	11-45
785	14-8		29-41
	26-24	927	11-47
786	14-11		29-43
	26-27	947	28-29
789	14-20	957	29-31
	26-34	1062	22-9
904	11-54 30-3	HR9000 HR9001 HR9002	14-28 14-29 14-30

#### Flashlight

112	27-26	PR6	20-3
116	20-43	PR7	20-7
222	27-27	PR9	20-4
222X	27-28	PR12	20-11
243	27-30	PR18	20-12
395X	20-5	PR20	20-13
PR2	20-2	PR30	20-8
PR3	20-6		
PR4	20-1		

# Table of Lamp Applications

## MINIATURE AND SUBMINIATURE LAMPS—Cont'd

Lamp Number	Line Number	Lamp Number	Line Number
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### EMERGENCY LIGHTING

#### Hand Lantern

27	20-45	503	20-48
407	20-44	1440	22-11
	30-11	1651	22-13
425	20-46	PR13	20-9
502	20-47	PR15	20-10

#### Signs/Signals

921	11-52	7695	14-25
	30-1		28-32
1229	23-41		

### ENTERTAINMENT

#### Home Appliance

6	22-24	782	14-21
773	14-19		26-35
	26-33		

#### Radio/TV

159	11-20	673	24-21
	28-17	756	28-39
658	11-29	904	11-52
	28-40		30-3

#### Toys/Games

13	20-28	455	20-50
127	11-16		30-13
	28-3	458	20-23
227E	11-18	555	11-23
	28-10		28-24
245	20-24	1447	20-37
258	30-15	1449	20-32
	21-3	1464	21-10
447	11-21		
	28-21		

### RECREATION

131	20-22	1416	29-32
1154	22-23	1638	23-40
1224	21-35	1945	15-23
			29-28

Lamp Number	Line Number	Lamp Number	Line Number
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### SCIENTIFIC EQUIPMENT

#### Instrument/Laboratory

210	20-16	1631X	22-29
308IF	23-30	1634	23-13
767	14-10	1649	22-30
	26-26	1731	24-4
778	14-17	1759	24-1
	26-31	1763	24-2
787	14-9	1874	29-39
	26-25	1876	29-36
788	14-12	1876X	29-37
	26-28	1944	30-5
790	14-22	1944X	30-6
	26-36	1960	15-18
791	14-23		29-23
	26-37	1962B	15-1
792	14-24		27-6
	26-38	1962DZ	15-2
794	14-18		27-7
	26-32	1962TX	15-4
1047	22-8		27-9
1096	22-18	1974	14-31
1152	22-35		27-1
1209	22-4	1974D	14-32
1240	21-36		27-2
1392	14-33	2331	22-1
	27-3	2338	22-2
1424	22-10	2601	14-2
1434	29-38		24-31
1489	29-45	2604X	14-15
1493	22-27		26-39
1503	22-3	2605	14-16
1561	24-3		26-40
1565	22-14	2701	14-4
1580X	23-37		24-32
1594	22-21	3027	14-5
1612	22-15		
1619	22-31		
1630	22-28		

#### Medical/Dental

157	21-13	2600	14-1
251	24-33		24-23
1460	22-25	2601	14-2
1460X	22-26		24-31
1468	22-19	3026	14-6
1468X	22-20		

### TRANSPORTATION

#### Commercial

53X	20-35	623	21-33
57X	21-2	624	21-34
97	21-24	1155	21-23
105	20-19	1156	23-8
124E-1	11-35	1203	23-31
	28-47	1251	21-29
194E	11-33	1252	21-30
	28-51	1591	23-18
194E-1	11-34	1591IF	23-19
	28-52	1638	23-40
198	23-9	1662	23-38
199	23-10	2058U	23-3
265	20-40	2242	23-7
293	21-7		

#### Auto

37	11-10	561	27-14
	25-24	562	27-19
37E	11-11	563	27-16
	25-25	624	21-34
51	20-31	631	21-27
53	20-34	880	15-15
55	20-52		14-26
57	21-1		28-33
63	21-16	881	14-27
67	21-21		15-16
68	21-22		28-34
70	11-13	906	11-53
	25-28		30-2
73	11-8	912	11-50
	25-22		29-48
74	11-12	1003	20-17
	25-27	1004	20-18
81	21-14	1034	22-40
88	21-32	1073	22-41
89	21-18	1076	22-42
90	21-19	1129	22-22
93	22-33	1133	22-5
94	22-34	1141	22-37
97A	21-25	1142	22-38
158	11-31	1156	23-8
	28-46	1157	23-4
161	11-30	1157A	23-5
	28-42	1157NA	23-6
168	11-38	1176	22-36
	29-1	1195	22-6
192	11-27	1196	22-7
	28-37	1445	20-36
194	11-32		20-38
	28-48	1816	28-35
194A	11-37	1889	28-53
	28-50	1891	28-45
194E-1	11-34	1892	29-3
	28-52	1893	28-54
194NA	11-36	1895	21-5
	28-49	2057	23-1
209	20-15	2057NA	23-2
211-2	27-13	P25-1	23-11
212-2	27-18	P25-2	23-12
214-2	27-17	R19/5	21-20
558	11-26	R19/10	21-26
	28-36	W10/3	11-28
			28-38

# Table of Lamp Applications

## SEALED BEAM LAMPS

Lamp Number	Line Number	Lamp Number	Line Number
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### AIRCRAFT

4313	35-9	4582	36-40
4505	34-11	4587	35-24
4509	35-4	4589	35-14
4522	36-22	4591	35-19
4537	36-17	4593	35-15
4541	37-7	4594	35-20
4551	36-34	4595	35-7
4552	37-8	4596	35-25
4553	36-35	Q4597	36-41
4554	36-36	4614	33-29
Q4554	36-37	4626	35-23
4555	37-14	4627	35-21
4557	37-13	Q4629	37-12
4559	37-9	Q4631	35-10
Q4559	37-10	Q4632	35-11
Q4559X	37-11	4634	33-28
4570	36-31	4635	36-26
4580	36-38	Q4681	36-42
4581	36-39		

### AUTO HEADLAMPS

4000	35-50	H5006	35-49
4001	36-3	6006	36-43
H4001	36-2	6014	36-46
4040	36-1	6015	37-1
4651	33-1	H6024	36-47
H4651	33-2	6052	33-11
4652	33-3	H6054	33-12
H4656	33-4		

### C.I.M.

(Construction and Industrial Machines, e.g. off-road machines, earthmoving equipment)

4078	35-34	4579	36-30
4406	34-18	4589	35-14
4410	34-21	4593	35-15
4411	34-22	4750	35-17
4425R	34-44	4752	35-18
4478	36-15	4825R	35-16
4578	36-28	4880	36-29

### EMERGENCY BUILDING LIGHTING

4013	35-30	H7552	33-25
4014	33-33	H7553	33-26
4042	33-32	H7554	33-27
4044	34-2	H7555	33-42
4044-1	34-3	H7556	33-19
4414	34-4	H7557	34-1
4446	34-9	7613	33-21
4510	33-39	7613-1	33-22
4606	35-28	7672-1	33-20
H7551	33-24		

Lamp Number	Line Number	Lamp Number	Line Number
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### FOGLAMPS

4412	35-39	4415	34-27
4412-1	35-40	4415A	34-28
4412A	35-41	4912-1	33-6
4412A-1	35-42	H7612	36-5

### HAND LANTERN

4346	33-17	4547	33-15
4468	33-18	4547-4	33-16
4546	33-13	H7550	33-23
4546-1	33-14		

### MARINE

4509X	35-5	4545	36-44
4519	35-6	4700	35-8
4537X	36-17	4705	36-21
4543	36-45		

### MILITARY

4031	35-33	4572	36-33
4431	36-8	4800	37-4
4502	35-12	4811	35-22
4505	35-13	4860	37-5
4530	36-27	4863	37-6
4531	35-35		

### MOPED/CYCLE

4020	35-32	4767	33-36
4420	35-38	4767-1	33-37
4467	36-13	4767-2	33-38
4667	33-34	4776	34-10
4667-1	33-35		

Lamp Number	Line Number	Lamp Number	Line Number
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### SIGNAL

Flashing Warning, Rotating Beacon, School Bus, Sign Board, Highway Barricade

4412A	35-41	4436	35-47
4412A-1	35-42	4436R	35-48
4413R	35-44	4439X	35-36
4414	34-4	4464	34-46
4414-1	34-5	4464R	34-47
4414A	34-6	4530	36-27
4414R	34-27	4571	36-32
4415A	34-28	4633R	36-23
4416	34-13	4636	36-24
4416-1	34-14	4636-1	36-25
4416A	34-15	7400	34-29
4416B	34-16	7400-1	34-30
4416R	34-17	7400R	34-31
4433A	37-2	7414Y	34-8
4433R	37-3	H7600	34-32
4434A	36-6	H7601-1	34-33

### SPECIAL SERVICE

4421	36-16	H7621-1	36-11
4675	35-3	H7675-1	34-43
4921-1	33-9	H7921-1	33-10

### SPOTLAMPS

4405	34-11	4537-2	36-19
4405-1	34-12	4537X	36-20
4416	34-13	4543	36-45
4416-1	34-14	4545	36-44
4435	35-37	4700	35-8
4509	35-4	4705	36-21
4515	33-41	H7604	34-42
4516	33-30	H7616	34-34
4519	35-6	H7616-1	34-35
4535	35-31	H7635	36-12
4537-1	36-18		

### TRACTOR

4013	35-30	4460X	34-38
4019	35-29	4460X-4	35-2
4406	34-18	4461	34-45
4406-1	34-19	4466	35-1
4409X	34-20	4510	33-39
4410	34-21	4511	33-31
4411	34-22	4603	34-25
4411-1	34-23	4603X	34-26
4413	35-43	4913-1	33-7
4419	35-45	4919-1	33-8
4422	34-24	H7606	34-39
4427	35-46	H7609	36-9
4440X	34-36	H7610	34-40
4440X-1	34-37	H7619	36-10
4459	36-7		

# GENERAL ELECTRIC LAMP SALES DISTRICTS AND DISTRIBUTION CENTERS

## SALES DISTRICTS

(To Obtain Sales and Technical Information)

## DISTRIBUTION CENTERS

(To Order Lamps and to Obtain Shipping Information.  
Local Warehouse Stocks maintained at these Points)

City	Address	ZIP No.	Area Code	Telephone No.	Address	ZIP No.	Area Code	Telephone No.
ALBANY, N.Y.	4 Avis Drive, Latham, N.Y.	12110	(518)	783-6188-89	Buffalo Distr. Ctr., 770 Riverview Blvd., Tonawanda, N.Y.	14150	(716)	874-5180
ATLANTA, GA.	120 Ottley Drive, N.E. P.O. Box 14529	30376			120 Ottley Drive, N.E. P.O. Box 14529	30376	(404)	897-2800
	Commercial & Industrial		(404)	897-2872				
	Consumer Products		(404)	897-2850				
BALTIMORE, MD.	1401 Parker Road P.O. Box 7427	21227	(301)	242-5700	1401 Parker Road P.O. Box 7427	21227	(301)	242-5700
BOSTON, MASS.	50 Industrial Place—P.O. Box 257, Newton Upper Falls, Mass.	02164	(617)	332-6200	50 Industrial Place—P.O. Box 257, Newton Upper Falls, Mass.	02164	(617)	332-6200
BUFFALO, N.Y.	770 Riverview Blvd., Tonawanda, N.Y.	14150	(716)	874-5180	770 Riverview Blvd., Tonawanda, N.Y.	14150	(716)	874-5180
CHARLOTTE, N.C.	1001 Tuckaseegee Rd. P.O. Box 34144	28234	(704)	376-6585	1001 Tuckaseegee Rd. P.O. Box 34144	28234	(704)	376-6585
CHICAGO, ILL.	4333 Trans World Rd., Schiller Park, Ill.	60176	(312)	671-6390	4201 South Pulaski Road	60632	(312)	254-6161
CINCINNATI, OHIO	Kenwood Professional Bldg., 9403 Kenwood Road	45242			49 Central Avenue	45202	(513)	632-7700
	Commercial & Industrial		(513)	745-5730				
	Consumer Products		(513)	745-5733				
CLEVELAND, OHIO	1705 Noble Rd. P.O. Box 2494	44112			1705 Noble Rd. P.O. Box 2422	44112	(216)	266-4404
	Commercial & Industrial		(216)	266-4256				
	Consumer Products		(216)	266-4264				
DALLAS, TEXAS	6500 Cedar Springs Rd. P.O. Box 35425	75235	(214)	358-5321	6500 Cedar Springs Rd. P.O. Box 35425	75235	(214)	358-5321
DENVER, COLO.	6501 Stapleton Drive, North	80216	(303)	320-3597	6501 Stapleton Drive, North	80216	(303)	320-3597
DETROIT, MICH.	15135 Hamilton Avenue	48203	(313)	252-2200	15135 Hamilton Avenue	48203	(313)	252-2200
HOUSTON, TEXAS	1200 Blalock Road, Suite 210	77055			7402 Neuhaus Ave. P.O. Box 12911	77017	(713)	644-3264
	Commercial & Industrial		(713)	932-6472				
	Consumer Products		(713)	932-6682				
INDIANAPOLIS, IND.	2511 E. 46th Street, Suite P P.O. Box 55650	46205	(317)	547-5513/14	Cincinnati Distr. Ctr., 49 Central Ave., Cincinnati, Ohio	45202	(513)	559-3600
KANSAS CITY, MO.	535 East 14th Ave., N. Kansas City, Mo.	64116	(816)	471-0123	535 East 14th Ave., N. Kansas City, Mo.	64116	(816)	471-0123
LOS ANGELES, CALIF.	2747 South Malt Avenue	90040	(213)	725-2677	2747 South Malt Avenue P.O. Box 22078	90040	(213)	725-2677
MEMPHIS, TENN.	2011 S. Latham St. P.O. Box 9335	38109			2021 South Latham Street	38109	(901)	774-9045
	Commercial & Industrial		(901)	774-9016				
	Consumer Products		(901)	774-9015				
MERIDEN, CONN.	250 Pomoroy Avenue P.O. Box 910	06450	(203)	238-6880	N.Y. Distr. Ctr., 75-11 Woodhaven Blvd., Glendale, N.Y.	11385	(212)	896-6000
				238-6800				
MIAMI, FLA.	3655 N.W. 71st St. P.O. Box 470857	33147	(305)	693-3811	3655 N.W. 71st St. P.O. Box 470857	33147	(305)	693-3811
MILWAUKEE, WIS.	8100 West Florist Ave. 53218	53201	(414)	462-3860	8100 West Florist Ave. 53218	53201	(414)	462-3860
MINNEAPOLIS, MINN.	8501 54th Avenue, No., New Hope, Minn.	55428			8501 54th Avenue, No. P.O. Box 1278	55440	(612)	535-5151
NEWARK, N.J.	6 Vreeland Road, Florham Park, N.J.	07932			133 Boyd Street P.O. Box 439	07101	(201)	622-8000
	Commercial & Industrial		(201)	966-5400				
	Consumer Products		(201)	966-5400				
NEW ORLEANS, LA	701 Edward Ave., Harahan, LA	70123			Mail: P.O. Box 10236, Jefferson, LA	70181	(504)	733-9200
	Mail: P.O. Box 10236, Jefferson, Louisiana	70181	(504)	733-9200				
NEW YORK, N.Y.	215 Lexington Avenue	10016	(212)	750-3028	75-11 Woodhaven Boulevard, Glendale, N.Y.	11385	(212)	896-6000
NEW YORK, N.Y.	26-45 Brooklyn Queens Expway, Woodside, N.Y.	11377	(212)	896-6000	26-45 Brooklyn Queens Expway, Woodside, N.Y.	11377	(212)	896-6000
OAKLAND, CALIF.	999—98th Avenue 94603 P.O. Box 24354	94623			999—98th Avenue 94603 P.O. Box 24354	94623	(415)	436-9433
	Commercial & Industrial		(415)	436-9450				
	Consumer Products		(415)	436-9470				
PHILADELPHIA, PA.	1000 Continental Drive—P.O. Box 299, King of Prussia, Pa.	19406	(215)	964-2900	1000 Continental Rd.—P.O. Box 299, King of Prussia, Pa.	19406	(215)	964-2900
PITTSBURGH, PA.	600 N. Bell Avenue, Carnegie, Pa.	15105			575 Epsilon Dr. P.O. Box 2801	15230	(412)	963-9141
	Commercial & Industrial		(412)	279-8920				
	Consumer Products		(412)	279-4874				
PORTLAND, ORE.	4930 Third Ave. So. P.O. Box 3877	98124			Portland Distr. Ctr., 2800 N. W. Nela Street	97210	(503)	221-5120
	Commercial & Industrial		(503)	221-5124				
	Consumer Products		(206)	292-6838				
RICHMOND, VA.	Koger Executive Ctr., 8002 Discovery Drive	23288	(804)	281-8655	Baltimore Distr. Ctr.—P.O. Box 7427, Baltimore, Md.	21227	(301)	242-5700
SALT LAKE CITY, UTAH	1605 Empire Rd. 84104 P.O. Box 26237	84126	(801)	974-4511	1605 Empire Rd., Mail: P.O. Box 26548	84125	(801)	974-4505
SEATTLE, WASH.	4930 Third Avenue South P.O. Box 3877	98124			4930 Third Avenue South P.O. Box 3877	98124	(206)	292-7891
	Commercial & Industrial		(206)	292-6836				
	Consumer Products		(206)	292-6838				
ST. LOUIS, MO.	1530 Fairview Avenue	63132	(314)	997-8413	1530 Fairview Avenue	63132	(314)	997-8413
SYRACUSE, N.Y.	290 Elwood Davis Road, Liverpool, N.Y.	13088	(315)	456-2975	Buffalo Dist. Ctr., 770 Riverview Blvd., Tonawanda, N.Y.	14150	(716)	874-5180
TAMPA, FLA.	11101 North 46th St. 33617 P.O. Box 16626	33687	(813)	988-7351	11101 North 46th St. 33617 P.O. Box 16626	33687	(813)	988-7351
	Commercial & Industrial		(813)	988-7351				
				Ext. 37/38				Ext. 37/38
	Consumer Products		(813)	988-7351				
WASHINGTON, D.C.	1401 Parker Rd.—P.O. Box 7427, Baltimore, Md.	21227	(301)	864-6105	Baltimore Distr. Ctr., 1401 Parker Rd. P.O. Box 7427	21227	(301)	242-5700

In addition to the Sales District Headquarters cities listed above, GE Lamp Sales Representatives are resident in 100 other cities. Consult your telephone directory under General Electric Company Lighting Business Group.

## GENERAL ELECTRIC COMPANY LIGHTING BUSINESS GROUP

GENERAL OFFICES: NELA PARK, CLEVELAND, OHIO 44112



208-31312  
(Replaces 208-9165R,  
208-0265 & 208-11703)