Typical Electric Lamp Wattage and Lumen Ratings:

Lamp efficiency figures from many sources side by side here for comparison.

Ordinary Light Bulbs
Halogen Lamps
Street Lighting Incandescent Lamps
Mercury Vapor Lamps
Sodium Vapor Lamps
Metal Halide Lamps (6/4/98)

Go to other topics

(Lamp output varies with voltage and also allowable manufacturing tolerances so variation of plus or minus five percent is not unusual.)

There is nothing special or unusual about a "long life" incandescent lamp (filament lamp). A "long life" or "extended life" lamp is simply one designed for a higher voltage than the equivalent "standard life" lamp. The filament achieves a not quite so high temperature so it evaporates more slowly. The light is also a bit more towards the yellowish side in terms of color, and the lamp gives fewer lumens per watt of electricity consumed. Also, there is nothing special or unusual about a "photoflood" incandescent lamp. This lamp is designed for a lower voltage. When operated in a "normal" electrical circuit, it operates at a higher temperature to fulfill its purpose of producing more light from one or a smaller number of lamps and also produce light more towards a bluish tint. The inescapable consequence of this is a shorter lamp life, an expected lifetime of four hours is quite common.

Household "Standard" Incandescent Lamps:
(figures published on lamp cartons)

Clear lamps give the most light. Light output varies slightly with the method of frosting the inside of the bulb.
The lifetime shown below is the time after which half the lamps randomly chosen for longevity testing from a manufactured batch can be expected to have burned out after continuous operation.

watts	lumens	hours	
15	105	3000	Philips
15	109	2500	Sylvania soft white
25	210	2500	Sylvania soft white
25	235	3150	Philips
35	375	1500	Sylvania energy saver

35	375	4240	* "industrial grade unbranded"
40	445	1500	Sylvania soft white
40	490	1500	Philips
40	490	1000	GE
45	540	1200	Sylvania 45/95/140 3 way low beam
50	575	1500	Philips 3 way low beam
50	580	2400	Sylvania 50/100/150 3 way low beam
50	580	1200	GE 3 way 50/100/150 low beam
50	640	1200	Sylvania 3 way 50/200/250 low beam
53	640	2600	* GE Pro Line
53	665	2830	* "industrial grade unbranded"
53	715	1000	Sylvania energy saver
55	800	1000	GE "Miser"
60	555	1000	Sylvania garage door or rough service
60	635	3000	GE garage door or rough service / vibration
60	800	2000	Sylvania long life
60	840	1000	GE
60	850	1000	** GE Pro Line
60	855	1000	Philips
60	870	1000	Sylvania soft white
60	880	1000	"industrial grade unbranded"
60	890	1000	Sylvania clear bulb
75	1080	1500	Sylvania double life
75	1170	750	GE
75	1180	750	Philips
75	1180	750	Sylvania soft white
75	1200	750	"industrial grade unbranded"
88	1300	2100	"industrial grade unbranded"
89	1275	1950	* GE Pro Line
90	1510	750	Sylvania energy saver
95	1300		Sylvania 3 way 45/95/140 high beam

100	1420		Sylvania 3 way 50/100/150 high beam
100	1585	1500	Sylvania double life
100	1625	750	Philips
100	1640		+ GE 3 way 50/100/150 high beam
100	1680	750	** GE Pro Line
100	1710	750	Sylvania soft white
100	1720	750	GE
100	1750	750	Sylvania clear bulb
150	2650	750	GE
150	2780	750	Sylvania
150	2850	750	Philips
200	3250		+ Philips 3 way high beam
200	3300		Sylvania 3 way 50/20/250 high beam
200	3675	1000	
200	3850	750	
200	3930	750	Sylvania clear bulb
300	6300	750	Philips

watts	lumens	hours

All lamps rated 120 volts, operated at 120 volts unless noted:
* 130 volt rating, 120 volt "long life" usage
** 130 volt rating, 130 volt normal usage
+ Lifetime not quoted for high beam filament

Household Halogen Reflector Flood Incandescent
(figures published on lamp cartons and wrappers)

watts	lumens	hours	
40	410	4000	* Philips
45	530	2000	** Philips
50	530	2000	Philips
50	590	2000	GE
60	880	2500	Philips
75	940	2000	Philips
90	1280	2000	Philips
100	1400	2000	GE

All lamps rated 120 volts, operated at 120 volts unless noted:
* 130 volt rating, 120 volt "long life" usage

** 130 volt rating, in 130 volt normal usage

Street Lighting Incandescent Lamps, 120 volt multiple
(information courtesy Joe Maurath, collector of antique streetlights)
(The standard lifetime for street lighting incandescent lamps is 3000 hours compared with 750 hours for household lamps. To achieve this lifetime, the lamps produce fewer lumens per watt compared with most household lamps.)

58	watts	600	lumens
92		1000	
189		2500	
202		2500	(6000 hour)
295		4000	
405		6000	
620		10000	
860		15000	

(500 and 750 watt lamps are also used)

Street Lighting Incandescent, 6.6 amp. series
(information courtesy Joe Maurath)

79	watt	(12 volt)	1000 lumen
165	watt	(25 volt)	2500 lumen
231	watt	(35 volt)	4000 lumen

Mercury Vapor: Lamps
(Excludes power consumed by the ballast)
(figures published on lamp cartons and wrappers and also on local utility outdoor lighting brochures)

watts	lumens	ANSI ballast
50		H-46
100	3500-4200	H-38
125	6000	
175	7000-8500	H-39
250	11-12000	H-37
400	20-22000	
1000	52-56000	

Important notice regarding mercury, metal halide, and sodium lamps. If the glass bulb should be broken the lamp should be promptly removed. Otherwise it might continue to operate and emit harmful ultraviolet light that causes sunburn and damages eyesight.

High Pressure Sodium Vapor Lamps
(Excludes power consumed by the ballast)
(figures published on lamp cartons and wrappers and also on local utility brochures)

watts	lumens	ANSI ballast

35	2250	S-76
50	4000	S-68
70	5800	S-62
100	9500	S-54
150	16000	S-55
250	30000	S-50
400	50000	S-51
1000	130000	

Some sodium lamps must not be tilted while lit or within a half hour after being turned off. That is, if it is base down when operated, it must be kept base down until it has cooled down for a half hour. For this reason it is not recommended that it be removed from the socket or transported shortly after it is turned off.

Metal Halide Lamps (added 6/4/98)

These are similar to mercury vapor lamps but require different ballasts. Lumen ratings will be added later.

watts	lumens	ANSI ballast
50		M110
70		M98
100		M90
175		M57
250		M58
400		M59

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We regret e-mail is not read daily, but a quick phone reminder helps.