

RESULTS : 40 W GLS BULBS

KEY NLT = Not Less Than ████████ = Non-conforming NT = Not tested (brand does not conform to the average life requirement as per standard.)
 NMT = Not More Than NA = Not Applicable (All 20 lamps stopped working before 1250 hrs.)
 ✓ = Conforming

AS PER IS										NON-IS				
Brands	Rank	M.R.P. (in Rs.)	Overall score	Average life (in hrs.)	Initial lumen (average)	Initial wattage (average)	No. of bulbs having life less than 700 hrs.	Average lumen maintenance at 750 ± 25 hrs.	Marking	Average lumen maintenance at 1250 hrs.	Efficacy* at 1250 hrs. (Average)	No. of lamps having life more than 1250 hrs. (out of 20)	Total average life (in hours) (A)	Energy cost per year (in Rs.) (B)
CONFORMING (Pear shape)														
Crompton	1	11.00	88	1177.57	416.98	40.42	Nil	95.36	✓	92.75	9.73	14	1330.26	944.21
Laxman Sylvania	2	11.00	79	1179.16	395.25	41.23	1	91.70	✓	89.47	8.79	11	1337.65	963.13
Osram Classic Clear	2	10.00	78	1092.80	446.45	40.74	Nil	94.28	✓	91.37	10.11	07	1169.50	951.69
Surya Super	2	11.00	77	1123.57	417.36	41.11	1	93.60	✓	90.79	9.24	11	1232.36	960.33
GE Crystal Clear	3	11.00	71	1042.52	454.55	40.53	Nil	93.69	✓	89.99	10.12	03	1055.10	946.78
New CEMA Super	4	11.00	67	1052.06	450.56	40.95	1	93.11	✓	90.07	10.07	02	1068.49	956.59
Bajaj	5	11.00	57	960.25	437.81	40.14	3	94.21	✓	92.38	10.42	02	965.95	937.67
Philips Classicitone Clear	6	11.00	47	999.61	436.29	40.12	Nil	94.50	✓	NA	NA	NIL	999.61	937.20
Anchor	7	11.00	45	975.09	447.52	40.69	Nil	93.47	✓	NA	NA	NIL	975.09	950.52
NON-CONFORMING (Pear shape)														
Wipro Safelite	-	11.00	41	941.04	436.64	40.45	1	94.24	● ¹	NT	NT	01	941.04	944.91
NON-CONFORMING (Mushroom shape)														
Orient	-	10.50	85	1143.95	404.97	41.40	NIL	96.76	● ²	93.95	9.31	12	1312.78	967.10
Diamond (Pear)	-	11.00	-	● ³	476.82	44.21	● ³	● ³	✓	● ³	● ³	● ³	● ³	1032.75
Prakash Lites	-	9.60	19	776.37	404.16	41.15	4	91.31	✓	NT	NT	NIL	776.37	961.26
Weightage (%)			100	12.5			12.5	10			20	12.5	12.5	20

(A) Total Average Life : The BIS specifies test up to 1250 hours but we extended the life test to check the total average life.

(B) The energy cost per year was calculated by considering the average initial wattage and use of 4 lamps for 4 hours/day throughout the year with the cost of energy as Rs. 4 per kilowatt hour (unit).

Requirements as per BIS

- Life Test : The life test shall be terminated at 1250 hrs. as per BIS Standard
- Initial Lumen : The initial lumen of individual lamp shall not be less than 93% of the rated lumen
Rated Lumen : 40W, 230 V = 415, 40W, 250 V = 410
- Initial Wattage : The initial watts of an individual lamp shall not exceed 104% of the rated wattage + 0.5 W
Rated Wattage : 40W

◆ In these brands, average life (test as per IS) and total average life (Non-IS test) are the same as these brands are not subjected to the extended life test due to non-conformance observed in average life requirements

- ¹ The markings on Wipro Safelite Lamps came off the surface even on normal handling of the lamps.
- ² Orient lamps were marked with 40W. Their cartons were marked with 25W & 215 lumen which should be 40W & 410 lumen. So Orient failed to comply with the marking requirements.
- ³ Failed in initial wattage hence not subjected to further tests.

The brands were tested also for mechanical and physical characteristics, lamp dimensions, control of interchangeability and safety, torsion, insulation resistance, solder, ageing and torsion test after 1250 hours. All the brands conformed to these parameters.

All the bulbs tested were of coiled coil type.

* Efficacy = Lumen/Wattage



CROMPTON
scored the highest at 88.

Laxman Sylvania, Osram Classic Clear and Surya Super
ranked second with 79, 78 and 77 respectively.

GE Crystal Clear
ranked third with 71.