

**Compact Fluorescent lamps**  
**(Efficacy & Functionality requirements)**

(As per Regulations for Non-directional Household Lamps, Order No 3 of Year 2015)

Sl. No.	Functionality Parameter	Requirement as per Regulations	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
1	Lamp Type (CFL/LED /Other)	<b>CFL</b>						
2	Nominal Lamp Power (Watt)	Entered data should fall with in formula. ( $\leq 0.24\sqrt{\Phi} + 0.0103\Phi$ )						
3	Nominal Luminous flux (lm )							
4	Correlated color temperature(CCT)							
5	Nominal Lamp Life (Hours)							
6	Type of lamp base							
7	Brand							
8	Lamp Model							
9	Lamp Code							
10	Expected quantity of import per year							
11	Importer / Vendor							
12	Manufacturer							
13	Country of manufacture							
14	Lamp survival factor at 6000 h	$\geq 0.70$						
15	<b>Lumen maintenance</b>							
	At 2000h	$\geq 88\%$						
	At 2000h for lamps with second envelope	$\geq 83\%$						
16	At 6000h	$\geq 70\%$						
	Number of switching cycles before failure	$\geq$ Lamp lifetime expressed in hours						
17	If lamp starting time > 0.3s	$\geq 30,000$						
	<b>Starting time</b>							
	If P < 10 W	< 1.5s						
18	If P $\geq$ 10 W	< 1.0s						
	Lamp warm-up time to 60% $\Phi$ (luminous flux)	< 40s						
19	Lamp warm-up time to 60% $\Phi$ (luminous flux) for lamp containing mercury in amalgam form	< 100s						
	Premature failure rate	$\leq 2.0\%$ at 400h						
20	UVA + UVB radiation	$\leq 2.0$ mW/klm						
21	UVC radiation	$\leq 0.01$ mW/klm						
22	<b>Lamp power factor</b>							
	If P < 25 W	$\geq 0.55$						
23	If P $\geq$ 25 W	$\geq 0.90$						
	Colour rendering (Ra)	$\geq 80$						
24	Product Information Requirements on the packaging. (Refer Section 6 of the Regulation)	As specified (Yes/No)						
25	Compliance to lamp Wattage requirement - if equivalence with an incandescent lamp is claimed on the packaging.(Refer Section 6j of the Regulation)	As specified (Yes/No)						
26	Submission of test certificates from an accredited test lab for compliance to all functionality requirements.	As specified (Yes/No)						
27	<b>Mercury limit</b>							
	$\geq 30$ W and < 150 W	5.0 mg						
	< 30 W	2.5 mg						
28	< 30 W with long lifetime (>15 khrs)	3.5 mg						
	Sample submission	Yes / No						