Appliance Standards Awareness Project

2025 State Clean Lighting

Savings estimates for: North Carolina

State	Potential annual reductions in 2030			Potential annual electricity savings in 2030 (GWh)	Potential annual electricity bill savings in 2030 (million 2023$)
	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO_2 emissions (thous. MT)		
North Carolina	31.5	0.43	113	796	66

Assuming a compliance date of 2027 for linear fluorescent lightbulbs and pin-based compact fluorescent lightbulbs and 2026 for screw-based compact fluorescent lightbulbs.

State	Potential cumulative reductions through 2050			Cumulative electricity savings through 2050 (GWh)	Cumulative electricity bill savings through 2050 (million 2023$)
	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO_2 emissions (thous. MT)		
North Carolina	272	7.3	1,632	11,843	1,032

Assuming a compliance date of 2027 for linear fluorescent lightbulbs and pin-based compact fluorescent lightbulbs and 2026 for screw-based compact fluorescent lightbulbs.

Fluorescent vs. LED: Economic analysis for most-shipped lamps (commercial sector)

Fluorescent lamp type	LED incremental cost (2023$)	First-year electricity bill savings from LED (2023$)	Life-cycle cost savings from LED (2023$)	Payback period (years)
4-foot T12 – 40 W	2.32	7.04	34	0.3
4-foot T12 – 34 W	3.56	5.06	27	0.7
4-foot T8	0.12	3.43	21	0.03
4-foot T5	1.55	4.54	30	0.3
4-foot T5 high output	4.23	9.01	57	0.5
Pin-based CFL	2.29	5.81	18	0.4