

**Appliance Standards Awareness Project
2024 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 2022\$)
	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO ₂ emissions (thous. MT)		
North Carolina	31.5	0.57	150	1,054	80

Assuming a compliance date of 2026 for linear fluorescent lightbulbs and 2025 for compact fluorescent lightbulbs.

State	Potential cumulative reductions through 2050			Cumulative electricity savings through 2050 (GWh)	Cumulative electricity bill savings through 2050 (million 2022\$)
	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO ₂ emissions (thous. MT)		
North Carolina	319	8.9	1,988	14,069	1,126

Assuming a compliance date of 2026 for linear fluorescent lightbulbs and 2025 for compact fluorescent lightbulbs.

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

Fluorescent lamp type	LED incremental cost (2022\$)	First-year electricity bill savings from LED (2022\$)	Life-cycle cost savings from LED (2022\$)	Payback period (years)
4-foot T12 – 40 W	2.16	6.70	29	0.3
4-foot T12 – 34 W	3.32	4.81	23	0.7
4-foot T8	0.11	3.26	18	0.03
4-foot T5	1.45	4.32	25	0.3
4-foot T5 high output	3.95	8.57	48	0.5
Pin-based CFL	2.14	5.36	16	0.4