

670 – Lighting System Improvement Specifications

In keeping with longstanding NRCS policy, all improvements must be fully installed, functional, and comprehensive across the planning unit (here, a building) to be certified as complete and qualify for the practice payment. For example, replacement of incandescent bulbs with LED bulbs must be done across the entire house, as appropriate for the intended function of the fixtures, and not just replaced for part of the house.

LED Bulbs

Technology: Light-Emitting Diode (LED)

Luminance: 400 lumens minimum at 100% output

Initial Efficacy: minimum of 50 lumens/Watt at 100% output

Output Angle Distribution: 115 to 180°

L70 Lumen Maintenance (useful life): 25,000 hours or greater

Dimming Range: 10 to 100% of output, *if installed as a poultry growout bulb*

Lens: Sealed lens or globe that protects circuitry from broiler litter airborne particulates and clean-up operations.

The producer is strongly encouraged to seek and purchase a model of LED bulb with a proven history for poultry house use.

CFL Bulbs

Technology: Compact Fluorescent (CFL) or Cold-Cathode Compact Fluorescent (CCFL)

Luminance: 400 lumens minimum

Initial Efficacy: minimum of 50 lumens/Watt at 100% output

Lens: An integral sealed lens or globe to allow easy cleaning is recommended but not required.

Other: CFL Bulbs may be used as 'brooding' bulbs but must not be installed as poultry 'growout' bulbs.

Linear Fluorescent

Bulb Technology: T8 or T5 linear fluorescent

Ballasting: The fixture must use an electronic ballast. Magnetic ballasts are specifically prohibited due to their known inefficiency.

Fixture Output: Each fixture must use one electronic ballast to drive a minimum of 8 feet total length of bulbs.

Other: The fixture must be permanently installed with 'hard' wiring. Switches or electronic controls must be installed.