

 <p style="text-align: center;">State of Ohio Weatherization Program Standards</p>	Section	MOBILE HOME MECHANICAL SYSTEMS INSPECTION
	Subject	Electrical Efficiency

FLUORESCENT LIGHTING 601-7.1

Survey and note all interior lighting fixtures. Note the location, existing wattage and number of bulbs per fixture. Interview the client to determine the hours per day the fixture is on.

survey existing lighting
601-7.1a

CEE

Using the information gathered and the replacement chart (see 1506-6.), determine which bulbs may be replaced and note that on the inspection form.

determine replacements
601-7.1b

The customer’s specific needs and habits must be considered in the replacement decision. Light quality (lumens) must not be compromised. Fluorescent bulbs must not be installed in fixtures equipped with dimmers unless the bulb manufacturer specifically allows for it.

customer needs
601-7.1c

Lumen output at the lamp should be sufficient to assure these illuminance levels *at the working surface*.

<u>Activity</u>	<u>Foot-candle Level</u>
General or ambient lighting	5-20
Task lighting (non-critical)	20-50
Reading or close work	50-100

Lumen output is measured at 1 foot from the source and is the total output in all directions. Foot-candles at the surface considers light output, distance from the light source and reflectance of the surrounding surfaces.

Approximate lumen output of incandescent lamps.

<u>Watts</u>	<u>Lumens</u>
41	505
53	800
61	870
76	1190
91	1620
100	1750

Reference the manufacturer’s information (typically on the box) for CFL lumen output.

consumer education

601-7.1d

CEE

Consumer education must be provided concerning matters such as:

- a. Fluorescent bulbs are most cost-effective in applications where the light remains on for long periods of time.
- b. Fluorescent bulbs may take 60-90 seconds to reach full brightness.
- c. Fluorescent bulbs last approximately 10 times longer and are therefore beneficial in hard to reach places.
- d. Fluorescent bulbs are applicable where safety is an issue, such as fixtures where incandescent bulbs exist that are overrated for the wattage of the fixture and therefore create a fire hazard.

OTHER ELECTRIC EFFICIENCY MEASURES (EEM)

601-7.2

measures

601-7.2

Only improvements determined to be cost-effective using approved audit calculations may be installed. Savings potential must be documented and usage levels of the pre-existing condition should be metered.

required electric energy efficiency measures

601-7.2b

- a. For any heated water bed, add (or have the customer add) a foam insulation blanket directly above the water filled mattress.
- b. Replace or convert any halide torchier lamp with a fluoresent torchier.

Typical electrical efficiency improvements would include repairs to water well pumps and lines, waterbed foam insulation covers, and repairs to timers on septic aerators (see 1506-6).

CONSUMER ENERGY EDUCATION 601-7.3

consumer energy education

601-7.3a

CEE

Education should be provided concerning such matters as the impact of dirty filters on electric clothes dryers, the impact of dirty coils on refrigerators and freezers, behavior impacts on refrigerator energy use, and the impacts of water leaks on well pumps.

REFRIGERATOR/FREEZER REPLACEMENT 601-7.4

survey existing appliances

601-7.4a

Survey and note each existing refrigerator and freezer. Note the location of each existing appliance and meter the existing wattage for at least 2 hours.

Using the information gathered and the replacement chart (see 1506-6.), determine which units can be replaced and note that on the inspection form.

**determine
replacements**
601-7.4b

The customer's specific needs and habits must be considered in the replacement decision. Observe the existing appliance and discuss with the customer whether down-sizing of the replacement unit is appropriate.

customer needs
601-7.4c

Refrigerator and freezers taken out of service must be discarded in an environmentally-sensitive manner. Old units contain refrigerant gasses that must be reclaimed only at licensed stations. No appliances taken out of service may be returned to service by sale, barter, or for free. Disposal/recycling costs are to be added to the replacement cost and considered in the cost-effectiveness testing.

recycle old units
601-7.4d