

New York Electrical Inspection Agency

2025 Energy Conservation Construction Code of New York State Residential Requirements

Section R404 Electrical Power, Lighting and Renewable Energy Systems

R404.1 Lighting Equipment

All permanently installed luminaires shall be capable of operation with an efficacy of not less than 45 lumens per watt or shall contain lamps capable of operation with an efficacy of not less than 65 lumens per watt.

Exceptions:

1. Appliance lamps.
2. Antimicrobial lighting used for the sole purpose of disinfecting.
3. General service lamps complying with DOE 10 CFR, Part 430.32.
4. Luminaires with a rated electric input of not greater than 3.0 watts.

TABLE R404.1

LIGHTING POWER ALLOWANCES FOR BUILDING EXTERIORS

BASE SITE ALLOWANCE	280 WATTS
Uncovered parking areas and drives	0.026 W/ft ²
Building grounds	
Walkways and ramps	0.50 W/linear foot
Plaza areas	0.049 W/ft ²
Dining areas	0.273 W/ft ²
Stairways	Exempt
Pedestrian tunnels	0.110 W/ft ²
Landscaping	0.025 W/ft ²
Building entrances and exits	
Pedestrian and vehicular entrances and exits	9.8 W/linear foot of opening
Entry canopies	0.126 W/ft ²

For SI: 1 watt per square foot = 10.76 w/m², 1 foot = 304.8 mm.

New York Electrical Inspection Agency

2025 Energy Conservation Construction Code of New York State Residential Requirements

Section R404 Electrical Power, Lighting and Renewable Energy Systems

R404.1.1 Exterior Lighting

Connected exterior lighting for Group R-2, R-3 and R-4 residential buildings shall comply with Sections R404.1.2 through R404.1.5.

Exceptions:

1. Detached one- and two- family dwellings.
2. Townhouses.
3. Group R-3 buildings that do not contain more than two dwelling units.
4. Solar-powered lamps not connected to any electrical service.
5. Luminaires controlled by a motion sensor.
6. Lamps and luminaires that comply with Section R404.1.

R404.1.2 Exterior Lighting Power Requirements

The total exterior connected lighting power shall be not greater than the exterior lighting power allowance calculated in accordance with Section R404.1.3. The total exterior connected lighting power shall be the total maximum rated wattage of all lighting that is powered through the energy service for the building.

Exceptions: Lighting used for the following applications shall not be included.

1. Lighting approved for safety reasons.
2. Emergency lighting that is automatically off during normal operations.
3. Exit signs.
4. Specialized signal, directional and marker lighting associated with transportation.
5. Lighting for athletic playing areas.
6. Temporary lighting.
7. Lighting used to highlight features of art, public monuments and the national flag.
8. Lighting for water features and swimming pools.
9. Lighting controlled from within sleeping units and dwelling units.
10. Lighting of the exterior means of egress as required by the Building Code of New York State.

New York Electrical Inspection Agency

2025 Energy Conservation Construction Code of New York State

Residential Requirements

Section R404 Electrical Power, Lighting and Renewable Energy Systems

R404.1.3 Exterior Lighting Power Allowance

The total area or length of each area type multiplied by the value for the area type in Table R404.1 shall be the lighting power (watts) allowed for each area type. For area types not listed, the area type that most closely represents the proposed use of the area shall be selected. The total exterior lighting power allowance (watts) shall be the sum of the base site allowance plus the watts from each area type.

R404.1.4 Additional Exterior Lighting Power

Additional exterior lighting power allowances shall be available for the building facades at 0.075 W/ft² (0.807 w/m²) of gross above-grade wall area. These additional power allowances shall be used only for the luminaires serving the facade and shall not be used to increase any other lighting power allowance.

R404.1.5 Gas Lighting

Gas-fired lighting appliances shall not be equipped with a continuous pilot and shall be equipped with an on-demand pilot, intermittent ignition or interrupted ignition as defined by ANSI Z21.20.

R404.2 Interior Lighting Controls

All permanently installed luminaires shall be controlled as required in Sections R404.2.1 and R404.2.2.

Exception: Lighting controls shall not be required for safety or security lighting.

R404.2.1 Habitable Spaces

All permanently installed luminaires in habitable spaces shall be controlled with a manual dimmer or with an automatic shutoff control that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a manual control to allow occupants to turn the lights on or off.

R404.2.2 Specific Locations

All permanently installed luminaires in garages, unfinished basements, laundry rooms and utility rooms shall be controlled by an automatic shutoff control that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a manual control to allow occupants to turn the lights on or off.

R404.3 Exterior Lighting Controls

Exterior lighting controls shall comply with Section R404.3.1.

New York Electrical Inspection Agency

2025 Energy Conservation Construction Code of New York State

Residential Requirements

Section R404 Electrical Power, Lighting and Renewable Energy Systems

R404.3.1 Controls for Individual Dwelling Units

Where the total permanently installed exterior lighting power is greater than 30 watts, the permanently installed exterior lighting shall comply with the following:

1. Lighting shall be controlled by a manual on and off switch which permits automatic shut off actions.
2. Lighting shall be automatically shut off when daylight is present and satisfies the lighting needs.
3. Controls that override automatic shut off actions shall not be allowed unless the override automatically returns automatic control to its normal operation within 24 hours.

[NY] R404.4 Renewable Energy Certificate (REC) Documentation

Where renewable energy generation is used to comply with this code, a signed attestation shall be provided to the building official by the property owner or owner's authorized agent demonstrating that where renewable energy certificates (RECs) or energy attributable certificates (EACs) are associated with that portion of renewable energy used to comply with this code, the owner has entered into a REC or EAC agreement that complies with the applicable provisions of this code, including that the RECs or EACs shall be retained, or retired, on behalf of the property owner.

[NY] R404.5 Dwelling Electrical Meter

Each *dwelling unit* located in a Group R-2 *building* shall have a separate electrical meter or submeter.