#### **Registration Number: Registration Date/Time:** CA Building Energy Efficiency Standards - 2019 Residential Compliance

# January 2020

#### Lighting - Single Family Dwellings - For Non-HERS Registered Projects Project Name: Enforcement Agency: Dwelling Address: City:

#### A. Installed Lighting and Controls Select Yes or No according to whether your work on the project includes each of the following types of lighting and controls. See Sections B through H for applicable requirements. High Efficacy luminaires installed in any interior rooms. (See Section B.) 01 JA8 compliant luminaires and controls installed in any interior rooms. (See Section B.) 02 03 Recessed downlight luminaire in ceilings in any interior rooms. (See Section C.) Screw-based luminaires installed in any interior rooms. (See Section D.) 04 05 Enclosed or recessed luminaires installed in any interior rooms. (See Section D.)

#### 06 Lighting and controls in bathrooms. (See Section E.) 07 Lighting and controls in laundry rooms. (See Section E.)

00	08 Lighting and controls in utility rooms. (See Section E.)		
09	Lighting and controls in garage. (See Section E.)		

10 Outdoor lighting and controls. (See Section H.) Blank electrical boxes installed more than 5 feet from finished floor. (See Section F.) 11

12 Internally illuminated address signs. (See Section G.)

B. High Efficacy Luminaires and Controls		
	150.0(k)1A and Table 150.0-A: All luminaires are installed with:	
01	<ul> <li>Light sources of one of the lighting technologies specified under the "High Efficacy" column of Table 150.0-A; or</li> </ul>	
	<ul> <li>JA8 compliant light sources and the light sources are marked with a label reading "JA8-2019" or "JA8-2019-E".</li> </ul>	
02	150.0(k)2J: Dimming controls for all luminaires with dimmable JA8 compliant light sources except for those controlled by occupancy or	
02	vacancy sensors.	
03	150.0(k)2A: Forward phase cut dimmers used with LED light sources shall comply with NEMA SSL 7A.	
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.		

C. Re	cessed Downlight Luminaires in Ceilings	
01	150.0(k)1Cv: Do not contain screw based sockets.	
02	The luminaire shall be marked with "JA8-2019".	
03	150.0(k)1Ci: Listed for zero clearance insulation contact (IC).	
04	150.0(k)1Cii: Has label certifying air tight.	
05	150.0(k)1Ciii: Sealed with a gasket or caulk between the luminaire housing and ceiling, and all air leakage paths between conditioned and	
05	unconditioned spaces are sealed with a gasket or caulk.	
06	150.0(k)1Civ: Allows ballast maintenance and replacement to be readily accessible to building occupants from below the ceiling without	
00	requiring the cutting of holes in the ceiling.	
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.		

D. A	dditional Luminaire Requirements
	150.0(k)1G: Screw based luminaires are installed with all of the following requirements:
01	<ul> <li>The luminaire is not recessed downlight luminaire in ceilings; and</li> </ul>
	<ul> <li>The luminaires are installed with lamps or light sources marked with "JA8-2019".</li> </ul>
02	150.0(k)1H: Enclosed or Recessed luminaires are installed with lamps or other separable light sources marked with "JA8-2019-E".
03	150.0(k)1D: Ballasts for fluorescent lamps rated 13 Watts or greater are electronic.
04	150.0(k)1E: Night lights, step lights and path lights are rated to consume no more than 5 Watts of power and emit more than 150 lumens,
04	or in compliance with Table 150.0-A, or controlled by vacancy sensors.
05	150.0(k)1F: Lighting integral to exhaust fans meets the requirements of Table 150.0-A, with exception to the lighting installed by the
05	manufacturer in kitchen exhaust hoods.
The r	responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

STATE OF CALIFORNIA Lighting – Single Family Dwellings CEC-CF2R-LTG-01-E (Revised 01/20)

CERTIFICATE OF INSTALLATION

CALIFORNIA ENERGY COMMISSION

Permit Number:

Zip Code:

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Y or N

## STATE OF CALIFORNIA Lighting – Single Family Dwellings CEC-CF2R-LTG-01-E (Revised 01/20)

CEC-CF2R-LTG-01-E (Revised 01/20)

CALIFORNIA ENERGY COMMISSION

CF2R-LTG-01-E

Lighting – Single Family Dwellings - For Non-HERS Registered Projects		
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

E. Additional Lighting Controls		
01	150.0(k)2J: In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces is controlled by an	
01	occupant or vacancy sensor providing automatic-off functionality.	
02	150.0(k)2B: Exhaust fans are controlled separately from lighting systems, or the lighting can be turned OFF on the same control as the fan.	
03	150.0(k)2C: Lighting has readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.	
04	150.0(k)2D: Lighting controls and equipment are installed in accordance with manufacturer's instructions.	
05	150.0(k)2E: No controls bypasses a dimmer, occupancy sensor or vacancy sensor function where that dimmer or sensor has been installed	
05	to comply with Section 150.0(k)	
06	150.0(k)2F: Lighting controls comply with the applicable requirements in Section 110.9.	
	150.0(k)2G: Energy Management Control Systems used to comply with control requirements provide the functionality of the specified	
07	control in accordance with Section 110.9, meet the installation certificate requirements in Section 130.4, meets the EMCS requirements in	
	Section 130.0(e), and complies with all other applicable requirements in Section 150.0(k)2.	
08	150.0(k)2H: A multi-scene programmable controller used to comply with dimmer requirements provides the functionality of a dimmer in	
08	accordance with Section 110.9, and complies with all other applicable requirements in Section 150.0(k)2.	
09	150.0(k)2K: Undercabinet lighting is controlled separately from ceiling installed lighting.	
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.		

F. Blank Electrical Boxes		
01	150.0(k)1B: The number of blank electrical boxes installed more than five feet above the finished floor and do not contain a luminaire or other device, are not greater than the number of bedrooms. The blank boxes are served by dimmer, vacancy sensor, or fan speed control.	
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.		

# **G.** Address Signs

01

150.0(k)4: Internally illuminated address signs. Internally illuminated address signs shall either:

- Comply with Section 140.8. Applicable nonresidential sign lighting compliance forms shall also be submitted; or
  - Consume no more than 5 Watts of power.

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

H. Single Family Outdoor Lighting		
01	150.0(k)1A and Table 150.0-A: High efficacy outdoor lighting or LED light sources are installed.	
	150.0(k)3A: Outdoor lighting is controlled by a manual ON and OFF switch that permits one of the following automatic actions:	
	<ul> <li>Controlled by a photocell and either a motion sensor or an automatic time switch control; or</li> </ul>	
	Controlled by an astronomical time clock control.	
02	Controls that override to ON shall not be allowed unless the override automatically returns the automatic control to its normal operation within 6 hours.	
	An energy management control that provides the specified lighting control functionality and complies with all requirements applicable to the specified controls may be used to meet the above requirements.	

## STATE OF CALIFORNIA Lighting – Single Family Dwellings CEC-CF2R-LTG-01-E (Revised 01/20)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF INSTALLATION		CF2R-LTG-01-E
Lighting – Single Family Dwellings - For Non-HERS Registered Proje	ects	(Page 3 of 3)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT			
1. I certify that this Certificate of Installation documentation is accurate and complete.			
Documentation Author Name:	Documentation Author Signature:		
Documentation Author Company Name:	Date Signed:		
Address:	CEA/HERS Certification Identification (if applicable):		
City/State/Zip:	Phone:		
RESPONSIBLE PERSON'S DECLARATION STATEMENT			
<ol> <li>I certify the following under penalty of perjury, under the laws of the State of California:</li> <li>The information provided on this Certificate of Installation is true and correct.</li> <li>I am either: a) a responsible person eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction, or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Installation, and attest to the declarations in this statement, or b) I am an authorized representative of the responsible person and attest to the declarations in this statement on the responsible person's behalf.</li> </ol>			
<ol> <li>The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations and the installation conforms to the requirements given on the Certificate of Compliance, plans, and specifications approved by the enforcement agency.</li> <li>I will ensure that a registered copy of this Certificate of Installation shall be posted or made available with the building permit(s) issued for</li> </ol>			

the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this			
Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.			
Responsible Builder/Installer Name:	Responsible Builder/Installer Signature:		
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)	Position With Company (Title):		
Address:	CSLB License:		
City/State/Zip:	Phone:	Date Signed:	

# CF2R-LTG-01-E User Instructions

There are two version of the residential lighting Certificate of Installation. This version, the CF2R-LTG-01-E, is primarily used for demonstrating compliance with the residential lighting Standards for single-family dwellings.

The LTG-01 shall also be used to demonstrate compliance with the residential lighting requirements for high-rise residential dwelling units; outdoor lighting that is attached to a high-rise residential or hotel/motel building, and is separately controlled from the inside of a dwelling unit or guest room; fire station dwelling accommodations; hotel and motel guest rooms; and, dormitory and senior housing dwelling accommodations. When using the CF2R-LTG-01-E to demonstrate compliance with the lighting in the dwelling units, compliance with lighting that is not in the dwelling units, such as lighting in common areas, shall be demonstrated using the nonresidential lighting compliance documentation.

The other version of the residential lighting Certificate of Compliance, the CF2R-LTG-02-E, is used for demonstrating compliance with the residential lighting Standards for low-rise multi-family dwellings. The primary difference between the LTG-02 and LTG-01 is that the LTG-02 includes additional requirements for demonstrating compliance with residential outdoor lighting, and common areas associated with low-rise multi-family dwelling units.

### Section A. Installed Lighting and Controls

This table is used to identify the scope of the work being covered by the responsible person signing this document. One person may be responsible for all of the measures in this table, or several people may each be responsible for only a portion of the measures. If several people are responsible, each person must separately fill out this Certificate of Installation for those measures for which they are responsible. In some situations, such as for alterations and additions, only some of the measures may be included in the total scope of work.

For rows 1 through 12 – insert 'Y' for each measure that is included in the scope of work, and insert 'N' for each measure that is not included in the scope of work.

### Section B. High Efficacy Luminaires and Controls

This table is a list of mandatory requirements for high efficacy luminaires.

## Section C. Recessed Downlight Luminaires in Ceilings

This table is a list of mandatory requirements for recessed downlight luminaires in ceilings.

## Section D. Additional Luminaire Requirements

This table is a list of additional requirements for luminaires.

#### Section E. LED Luminaires

This table is a list of mandatory requirements for LED luminaires.

#### Section F. Blank Electrical Boxes

This table is a list of mandatory requirements for blank electrical boxes.

#### Section G. Address Signs

This table is a list of mandatory requirements for address signs.

#### Section H. Single Family Outdoor Lighting

This table is a list of mandatory requirements for single family outdoor lighting.