POWER ADJUSTMENT FACTORS

CERTIFICATE OF INSTALLATION		NRCI-LTI-05-E
Power Adjustment Factors		(Page 1 of 4)
Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:

GENERAL INFORMATION				
DATE OF BUILDING PERMIT:	PERMIT #:			
BUILDING TYPE	☐ Nonresidential	☐ High-Rise Res (Common Area)	☐ Hotel/Motel (Common Area)	
PHASE OF CONSTRUCTION	☐ New Construction	☐ Addition	☐ Alteration	☐ Unconditioned

SCOPE OF RESPONSIBILITY	
Enter the date of approval by enforcement agency of the Certificate of Compliance that provides the specifications for the energy efficiency measures for the scope of responsibility for this Installation Certificate.	Date:

Power Adjustment Factor (PAF)

§130.4(b) - Before a Power Adjustment Factor will be allowed for compliance with Section 140.6 of Part 6 of Title 24, the person who is eligible under Division 3 of the Business and Professions Code to accept responsibility for the construction or installation of features, materials, components, or manufactured devices shall sign and submit this Installation Certificate.

§140.6(a) 2 - Reduction of wattage through controls. In calculating actual indoor lighting power, the installed watts of a luminaire providing general lighting in an area listed in TABLE 140.6-A may be reduced by the product of (i) the number of watts controlled as described in TABLE 140.6-A, times (ii) the applicable Power Adjustment Factor (PAF), if all of the conditions in this Certificate of Installation are met.

If any of the requirements in this Installation Certificate fail, the installation shall not be eligible for using the PAF.

Check all that apply:

PART 1 Certificate of Compliance Correctly Filled Out

☐ In addition to this Certificate of Installation, the PAF has been correctly documented on page 2 of NRCC-LTI-02-E Certificate of Compliance submitted to the building department.

PART 2 Type of PAF

☐ **A. This installation qualifies for the following PAFs:**

☐ 1. This installation qualifies for the PAF for a Daylight Dimming plus OFF control in TABLE 140.6-A because it meets all of the following requirements:

- ☐ a. The PAF applies only to the luminaires in the primary sidelit daylit zone and the skylit daylit zone; and
- ☐ b. The PAF used is 0.10; and
- ☐ c. The daylight control and controlled luminaires comply with Automatic Daylighting Control requirements of Section 130.1(d); and
- ☐ d. The daylight dimming plus OFF controls is verified by the acceptance test required by Section 130.4(a)3; and
- ☐ e. The daylight dimming plus OFF controls is verified by the acceptance test required by Section 130.4(a)7; and

☐ f. This daylight dimming plus OFF control turn lights completely OFF when the daylight available in the daylit zone is greater than 150% of the illuminance received from the general lighting system at full power.

☐ 2. This installation qualifies for the PAF for an occupant sensing control controlling the general lighting in large open plan office areas above workstations, in accordance with TABLE 140.6-A, because the following requirements have been met:

- ☐ a. The occupant sensing controls are in large open plan offices that are greater than 250 ft^2 and in addition:
  - ☐ i. The PAF used is 0.40 for sensing controlled area no larger than 125 ft^2
  - ☐ ii. The PAF used is 0.30 for occupant sensing controlled area from 125 to 250 ft^2
  - ☐ iii. The PAF used is 0.20 for occupant sensing controlled area from 251 to 500 ft^2
- ☐ b. This PAF is only being applied to office areas which contain workstations; and
- ☐ c. Controlled luminaires are only those which provide general lighting directly above the controlled area, or furniture mounted luminaires that comply with Section 140.6(a)2 and provide general lighting directly above the controlled area; and
- ☐ d. Qualifying luminaires have been controlled by occupant sensing controls that meet all of the following requirements, as applicable:
  - ☐ i. Infrared sensors have been equipped by the manufacturer, or fitted in the field by the installer, with lenses or shrouds to prevent them from being triggered by movement outside of the controlled area.
  - ☐ ii. Ultrasonic sensors have been tuned to reduce their sensitivity to prevent them from being triggered by movements outside of the controlled area.
  - ☐ iii. All other sensors have been installed and adjusted as necessary to prevent them from being triggered by movements outside of the controlled area.

☐ 3. This installation qualifies for the PAF for an Insitutional Tuning in Table 140.6-A, because the installation meets all of the following requirements:

- ☐ i. The lighting controls limit the maximum output or maximum power draw of the controlled lighting to 85% or less of full light output or full power draw; and
- ☐ ii. The means of setting the limit is accessible only to authorized personnel; and
- ☐ iii. The setting of the limit is verified by the acceptance test required by Section 130.4(a)7; and
- ☐ iv. The construction documents specify which lighting systems have their maximum light output or maximum power draw set to no greater than 85% of full light output or full power draw.

☐ 4. This installation qualifies for the PAF for a Demand Responsive Control in TABLE 140.6-A, because the installation meets all of the following requirements:

- ☐ i. The building is 10,000 ft^2 or smaller; and
- ☐ ii. The PAF used is 0.05. Note that luminaires that qualify for other PAFs may also qualify for this demand responsive control PAF.
- ☐ iii. The controlled lighting is capable of being automatically reduced in response to a demand response signal; and

- ☐ iv. Lighting has been reduced in a manner consistent with uniform level of illumination requirements in TABLE 130.1-A; and
- ☐ v. Spaces that are non-habitable have not been used to comply with this requirement, and
- ☐ vi. Spaces with a lighting power density of less than 0.5 W/ ft^2 have not been counted toward the building's total lighting power.

PART 3 PAF Minimum Requirements

Check all that apply:

- ☐ A. The lighting control used to earn the PAF is designed and installed in addition to all manual, and automatic lighting controls otherwise required in 130.1(a) through (e)
  - ☐ EXCEPTION. The lighting control used to earn a PAF has been designed and installed for the sole purpose of compliance with Section 130.1(b)3, and this lighting control is designed and installed in addition to all other manual, and automatic lighting controls otherwise required in Section 130.1.
- ☐ B. Installed wattage has been determined in accordance with Section 130.0(c)
- ☐ C. Space types that qualify for the PAF comply with the definition for that space type in Section 100.1(b)
- ☐ D. Self-contained lighting controls used to earn the PAF comply with Section 110.9 and are certified in accordance with the Appliance Efficiency Regulations, as verified on the Title 20 database of certified lighting controls
- ☐ E. A lighting control system is used to earn the PAF, which complies with Section 110.9.
  - ☐ When using a lighting control system to earn a PAF, also submit the Installation Certificate for Energy Management Control System and Lighting Control System (NRCI-LTI-02-E).
- ☐ F. The controls are permanently installed nonresidential-rated lighting controls. (Portable lighting, portable lighting controls, and residential rated lighting controls shall not qualify for PAFs.)
- ☐ G. The controlled lighting used to earn this PAF is a permanently installed general lighting system.
  - ☐ Furniture mounted luminaires qualify as general lighting system for the purpose of earning this PAF because the general lighting is in an office, and the furniture mounted luminaires comply with all of the following conditions:
    - i. The furniture mounted luminaires have been permanently installed no later than the time of building permit inspection; and
    - ii. The furniture mounted luminaires have been permanently hardwired; and
    - iii. The furniture mounted lighting system has been designed to provide indirect general lighting; and
    - iv. Before multiplying the installed watts of the furniture mounted luminaire by the applicable PAF, 0.3 W/ ft^2 of the area illuminated by the furniture mounted luminaires has been subtracted from installed watts of the furniture mounted luminaires.
- ☐ H. At least 50% of the light output of the controlled luminaire is within the applicable area listed in TABLE 140.6-A. Luminaires on lighting tracks are within the applicable area in order to qualify for a PAF.
- ☐ I. Only one PAF from TABLE 140.6-A has been used for each qualifying luminaire. PAFs have not been added together unless specifically allowed in TABLE 140.6-A.
- ☐ L. Only lighting wattage directly controlled in accordance with Section 140.6(a)2 has been used to reduce the calculated actual indoor lighting power as allowed by Section 140.6(a)2.
  - ☐ Only a portion of the wattage in a luminaire is controlled in accordance Section 140.6(a)2, and only that portion of controlled wattage has been reduced in calculating actual indoor lighting power.

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Project Name:	Enforcement Agency:	Permit Number:
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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 Certification Identification (If applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Installation is true and correct.
2. I am 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 (responsible builder/installer), otherwise I am an authorized representative of the responsible builder/installer.
3. 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 plans and specifications approved by the enforcement agency.
4. I reviewed a copy of the Certificate of Compliance approved by the enforcement agency that identifies the specific requirements for the scope of construction or installation identified on this Certificate of Installation, and I have ensured that the requirements that apply to the construction or installation have been met.
5. I will ensure that a completed signed copy of this Certificate of Installation shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed 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:
Third Party Quality Control Program (TPQCP) Status:	Name of TPQCP (if applicable):	