

DOCKETED

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Project Title:	2016 Nonresidential Compliance Manual Subchapters and Documents Related to Lighting Alterations
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Document Title:	2016-NRCC-LTS-01-E - Certificate of Compliance, Sign Lighting
Description:	2016 Certificate of Compliance, Sign Lighting
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CERTIFICATE OF COMPLIANCE

NRCC-LTS-01-E

Sign Lighting

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Project Name:

Date Prepared:

1b. Mandatory Sign Lighting Controls

If the person signing the Certificate of Compliance Declaration Statement on this NRCC-LTS-01-E is responsible for complying with the sign lighting control requirements, that person shall answer all of the following questions:

If there are construction documents, indicate where on the building plans the mandatory measures (sign lighting control) note block can be located:

1	§130.3(a)1. All indoor sign lighting is controlled with an automatic time-switch control or astronomical time-switch control.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
2	§130.3(a)2A. All outdoor sign lighting is controlled with a photocontrol in addition to an automatic time-switch control, or an astronomical time-switch control.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	EXCEPTION to Section 130.3(a)2A: Outdoor signs in tunnels, and signs in large permanently covered outdoor areas that are intended to be continuously lit, 24 hours per day and 365 days per year.	Y <input type="checkbox"/>		NA <input type="checkbox"/>
3	§130.3(a)2B. All outdoor sign lighting that is ON both day and night is controlled with a dimmer that provides the ability to automatically reduce sign lighting power by a minimum of 65% percent during nighttime hours. Signs that are illuminated at night and for more than 1 hour during daylight hours shall be considered ON both day and night.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	EXCEPTION to Section 130.3(a)2B: Outdoor signs in tunnels and large covered areas that are intended to be illuminated both day and night.	Y <input type="checkbox"/>		NA <input type="checkbox"/>
4	§130.3(a)3. Demand Responsive Electronic Message Center Control. An Electronic Message Center (EMC) having a new connected lighting power load greater than 15 kW has a control installed that is capable of reducing the lighting power by a minimum of 30% percent when receiving a demand response signal.	Y <input type="checkbox"/>	N <input type="checkbox"/>	N/A <input type="checkbox"/>
	EXCEPTION to Section 130.3(a)3: Lighting for EMCs that is not permitted by a health or life safety statute, ordinance, or regulation to be reduced by 30% percent .	Y <input type="checkbox"/>		NA <input type="checkbox"/>

Field Inspector Notes:



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2. Mandatory Sign Lighting Measures**I have responsibility for installing the sign lighting**☐ Yes, I have responsibility for the sign lighting, and will complete parts 2a and 2b of this compliance document☐ No, I do not have responsibility for installing the sign lighting. Someone else will complete parts 2a and 2b of this compliance document.**2a. Maximum Allowed Lighting Power Method of Compliance**

Certificate of Compliance and Field Inspection Energy Checklist.

Complete this part if there are signs using the maximum allowed lighting power method of compliance. (Complete part ~~2b~~3 of this Certificate of Compliance if there are signs using the Specific Lighting Sources method of compliance).

A	B	C	D	E	F	G	H	I	J
Symbol or Code	Description of the Sign	OPTIONAL – Energy Verified Label (see instructions below)	Allotted Watts				Design Watts	Complies Y/N	Filed Inspector Check that Sign Complies
			Sign Area (ft ²)	Internally (I) or Externally (E) Illuminated	Allowed LPD (I = 12 W/ft ²) (E = 2.3 W/ft ²)	Allowed Watts (D x F)	Total Installed Watts for Sign	Complies if H ≤ G	
		✓							✓
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>
		<input type="checkbox"/>							<input type="checkbox"/>

A Symbol or code used on the plans (when plans are required) and other documents.

B A description of the sign, or location of sign on the building; and the location of sign on construction documents.

C OPTIONAL - Check this box only if this sign has a permanent, pre-printed, factory-installed, ENERGY VERIFIED label, confirming that the sign complies with the Section 140.8 of the California ~~2013~~2016 Title 24, Part 6 Standards, using the Maximum Allowed Lighting Power method of compliance. The only labels that will be recognized for this purpose are ENERGY VERIFIED Certification Marks authorized by Underwriters Laboratories (UL) or other Product Certification Body accredited to ISO/IEC Guide 65 by the American National Standards Institute in accordance with ISO/IEC 17011. Surveillance by the Accredited Certification Body shall be an ongoing annual inspection program carried out by a Type A Inspection body in accordance with ISO/IEC 17020. For signs with such an ENERGY VERIFIED label, columns 'D' through 'I' are not required to be filled out. Note: Using an ENERGY VERIFIED label is an optional method to validate compliance. An ENERGY VERIFIED label is not needed for compliance.

D The sign area in square feet.

E List "I" if the sign is internally illuminated. List "E" if the sign is externally illuminated.

F Allowed watts per square foot. Enter 12 if the sign is listed as "I" in column E. Enter 2.3 if sign is listed as "E" in column E.

G Multiply the square footage in column D times the allowed Lighting Power Density (LPD = watts) in column F.

H Show the total installed watts in the sign, as determined according to the applicable provisions of §130(c).

I Enter Y if the number in column H is less than or equal to the number in column G. Otherwise, the sign does not comply.

J This page doubles as a field inspection checklist.

Field Inspector Notes:



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2b3. Specific Lighting Source Method of Compliance

Certificate of Compliance and Field Inspection Energy Checklist

Complete this part if there are signs using the Specific Lighting source method of compliance. (Complete part 2 of this Certificate of Compliance if there are signs using the maximum allowed lighting power method of compliance)

A	B	C	D	E
Symbol or Code	Description	OPTIONAL ENERGY VERIFIED label (see instructions below)	Specific light source used for compliance Shall include only lighting technologies listed below (List all that apply)	Field Inspector Check that Sign Complies ✓
		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>		<input type="checkbox"/>
A	Symbol or code used on the plans (when plans are required) and other documents.			
B	A narrative description of the sign, or location of sign on the building; and the location of sign on construction documents			
C	OPTIONAL - Check this box only if this sign has a permanent, pre-printed, factory-installed ENERGY VERIFIED label, confirming that this sign complies with the Section 140.8 of the California 2013 2016 Title 24, Part 6 Standards, using the Specific Lighting Source Method of Compliance. The only labels that will be recognized for this purpose are ENERGY VERIFIED Certification Marks authorized by Underwriters Laboratories (UL) or other Product Certification Body accredited to ISO/IEC Guide 65 by the American National Standards Institute in accordance with ISO/IEC 17011. Surveillance by the Accredited Certification Body shall be an ongoing annual inspection program carried out by a Type A Inspection body in accordance with ISO/IEC 17020. For signs with such an ENERGY VERIFIED label, column 'D' is not required to be filled out. Note: Using an ENERGY VERIFIED label is an optional method to validate compliance. An ENERGY VERIFIED label is not needed for compliance.			
	Specific Light Source Compliance Method. The sign(s) identified above use only the following lighting technologies: List all applicable numbers (1 through 9) that apply in column D above for each row.			
	1	High pressure sodium lamps		
	2	Metal halide lamps that are pulse start or ceramic served by a ballast that has a minimum efficiency of 88%-percent or greater. Ballast efficiency is the measured output wattage to the lamp divided by the measured operating input wattage when tested according to ANSI C82.6-2005.		
	3	Metal halide lamps that are pulse start that are 320 watts or smaller, are not 250 watt or 175 watt lamps, and are served by a ballast that has a minimum efficiency of 80%-percent . Ballast efficiency is the measured output wattage to the lamp divided by the measured operating input wattage when tested according to ANSI C82.6-2005.		
D	4	Neon or cold cathode lamps with transformer or power supply efficiency greater than or equal to a minimum efficiency of 75%-percent when the transformer or power supply rated output current is less than 50 mA. The ratio of the output wattage to the input wattage is at 100%-percent tubing load.		
	5	Neon or cold cathode lamps with transformer or power supply efficiency greater than or equal to a minimum efficiency of 68%-percent when the transformer or power supply rated output current is 50 mA or greater. The ratio of the output wattage to the input wattage is at 100%-percent tubing load.		
	6	Fluorescent lighting systems meeting one of the following requirements: A.) Use only lamps with a minimum color rendering index (CRI) of 80; or B.) Use only electronic ballasts with a fundamental output frequency not less than 20 kHz.		
	7	Light emitting diodes (LEDs) with a power supply having an efficiency of 80%-percent or greater.		
	8	Single voltage external power supplies that are designed to convert 120 volt AC input into lower voltage DC or AC output, and have a nameplate output power less than or equal to 250 watts, shall comply with the applicable requirements of the Appliance Efficiency Regulations (Title 20).		
	9	Compact fluorescent lamps that do not contain a medium screw base sockets (E24/E26).		
E	This page doubles as a field inspection checklist.			
Field Inspector Notes:				



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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
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:	
<ol style="list-style-type: none"> The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall be 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 Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 	
Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Address:	License:
City/State/Zip:	Phone:

NRCC-LTS-01-E User Instructions

A copy of this document must be submitted to the enforcement agency at the time of building permit application. With enforcement agency approval, the applicant may use alternative formats of these documents (rather than the official Energy Commission compliance documents), provided the information is the same and the format is similar.

Section A. General Information

- **Project Address** the address of the project where the sign is installed, as shown on the plans.
- **Location of Sign** – check the appropriate box to identify if the project includes Outdoor Signs, Indoor Signs, or both.
- **Phase of Sign Construction** – check the appropriate box to identify if the project includes adding or installing new signs, altering existing signs, or both.
- **Type of Lighting Control** - check the appropriate box to identify if the project includes adding new lighting controls, replacing existing lighting controls, or if the project does not include installing lighting controls.

Compliance Components – check the appropriate box to indicate if this job includes installing lighting controls that meet mandatory requirements for sign lighting, uses the Maximum Allowed Lighting Power as the method to achieve compliance with the lighting power requirements in the Standards, and/or uses Specific Lighting Sources as the method to achieve compliance with the lighting power requirements in the Standards. (A project may include some signs that comply using the Maximum Allowed Lighting Power approach and some that comply using the Specific Lighting Sources approach.)

Section 1. Mandatory Sign Lighting Controls

If the person signing the Certificate of Compliance Declaration Statement on the last page is responsible for complying with the sign lighting control requirements, that person shall answer all statement questions in Section 1a and 1b.

Section 1a. Statement of Responsibility

Check each box to indicate if the existing controls meet §110.9 and §130.3, if they fail to meet §110.9 and §130.3, or if there are no existing controls.

Section 1b. Mandatory Sign Lighting Controls

Answer all statement questions by checking Yes (Y), NO (N), or Not Applicable (NA).

Field Inspector Notes: This space is provided on the document for the field inspector to make notes.

In addition to the mandatory sign lighting control requirements, there are two options for complying with the sign lighting power requirements:

1. Maximum Allowed Lighting Power, which is documented on page 3; and
2. Specific Lighting Source, which is documented on page 4.

Section 2. Mandatory Sign Lighting Measures

If the person signing the Certificate of Compliance Declaration Statement on the last page is responsible for complying with the sign lighting Control requirements, that person shall answer all statement questions in Section 1a and 1b.

Section 2a. Maximum Allowed Lighting Power Method of Compliance

Certificate of Compliance and Field Inspection Energy Checklist

This page is for documenting compliance when using the maximum allowed lighting power method. A sign which complies with the specific lighting source method is not required to comply with the maximum allowed lighting power method.

Fill out a separate row for each sign as follows:

- | | |
|-----------|--|
| Column A. | <u>List the symbol or code used to identify the sign on the plans (when plans are required) and other documents.</u> |
| Column B | <u>A description of the sign, or location of sign on the building; and the location of the sign on the construction documents.</u> |
| Column C | <u>OPTIONAL – this is an optional, voluntary method for documenting that a sign complies with the lighting power requirements.</u> |

Check this box only if the sign has a permanent, pre-printed, factory-installed, ENERGY VERIFIED label, confirming that the sign complies with the Section 140.8 of the California 2016 Title 24, Part 6 Standards, using the Maximum Allowed Lighting Power method of compliance.
The only labels that will be recognized for this purpose are ENERGY VERIFIED Certification Marks authorized by Underwriters Laboratories (UL) or other Product Certification Body accredited to ISO/IEC Guide 65 by the American National Standards Institute in accordance with ISO/IEC 17011. Surveillance by the Accredited Certification Body shall be an ongoing annual inspection program carried out by a Type A Inspection body in accordance with ISO/IEC 17020. For signs with an ENERGY VERIFIED label, columns 'D' through 'I' are not required to be filled out. Note: Using an ENERGY VERIFIED label is an optional method to validate compliance. An ENERGY VERIFIED label is not needed for compliance.

Column D	The sign area in square feet.
Column E	List "I" if the sign is internally illuminated. List "E" if the sign is externally illuminated.
Column F	Allowed watts per square foot. Enter 12 if the sign is listed as "I" in column E. Enter 2.3 if sign is listed as "E" in column E. These two numbers are the only numbers which can be used when using the maximum lighting power method of compliance.
Column G	Multiply the square footage in column D by the allowed Lighting Power Density (LPD = watts) in column F.
Column H	Show the total installed watts in the sign, as determined according to the applicable provisions of §130.0(c).
Column I	Enter 'Y' if the number in column 'H' is less than or equal to the number in column 'G'. This entry is a declaration that the sign complies with the sign lighting power requirements by using the maximum lighting power method of compliance. Otherwise, the sign does not comply.
Column J	This page doubles as a field inspection checklist.

Field Inspector Notes: This space is provided for the field inspector to make notes.

Section 2b. Specific Lighting Source Method of Compliance

Certificate of Compliance and Field Inspection Energy Checklist

This page is for documenting compliance when using the specific lighting source compliance method. Watts per square foot are not required to be calculated when signs consist solely of one or more of the specified lighting technologies listed on this page.

Fill out a separate row for each sign as follows:

Column A.	List the symbol or code used to identify the sign on the plans (when plans are required) and other documents.
Column B	A narrative description of the sign, or location of sign on the building; and the location of the sign on construction documents.
Column C	OPTIONAL – this is an optional, voluntary method for documenting that a sign complies with the lighting power requirements. <u>Check this box only if this sign has a permanent, pre-printed, factory-installed, ENERGY VERIFIED label, confirming that the sign complies with Section 140.8 of the California 2016 Title 24, Part 6 Standards, using the Specific Lighting Source Method of compliance.</u> <u>The only labels that will be recognized for this purpose are ENERGY VERIFIED Certification Marks authorized by Underwriters Laboratories (UL) or other Product Certification Body accredited to ISO/IEC Guide 65 by the American National Standards Institute in accordance with ISO/IEC 17011. Surveillance by the Accredited Certification Body shall be an ongoing annual inspection program carried out by a Type A Inspection body in accordance with ISO/IEC 17020. For signs with such an ENERGY VERIFIED label, columns 'D' through 'I' are not required to be filled out. Note: Using an ENERGY VERIFIED label is an optional method to validate compliance. An ENERGY VERIFIED label is not needed for compliance.</u>
Column D	<u>Specific Light Source Compliance Method.</u> <u>List one or more of the following numbers to identify which of the specified lighting technologies are used to comply with the sign lighting power requirements:</u> <ol style="list-style-type: none"> <u>1 High pressure sodium lamps</u> <u>2 Metal halide lamps that are pulse start or ceramic served by a ballast that has a minimum efficiency of 88% or greater. Ballast efficiency is the measured output wattage to the lamp divided by the measured operating input wattage when tested according to ANSI C82.6-2005.</u> <u>3 Metal halide lamps that are pulse start that are 320 watts or less, are not 250 watt or 175 watt lamps, and are served by a ballast that has a minimum efficiency of 80%.</u>

Ballast efficiency is the measured output wattage to the lamp divided by the measured operating input wattage when tested according to ANSI C82.6-2005.

4 Neon or cold cathode lamps with transformer or power supply efficiency greater than or equal to a minimum efficiency of 75% when the transformer or power supply rated output current is less than 50 mA. The ratio of the output wattage to the input wattage is at 100% tubing load.

5 Neon or cold cathode lamps with transformer or power supply efficiency greater than or equal to a minimum efficiency of 68% when the transformer or power supply rated output current is 50 mA or greater. The ratio of the output wattage to the input wattage is at 100% tubing load.

6 Fluorescent lighting systems meeting one of the following requirements: A.) use only lamps with a minimum color rendering index (CRI) of 80; or B.) use only electronic ballasts with a fundamental output frequency not less than 20 kHz.

7 Light emitting diodes (LEDs) with a power supply having an efficiency of 80% or greater.

8 Single voltage external power supplies that are designed to convert 120 volt AC input into lower voltage DC or AC output, and have a nameplate output power less than or equal to 250 watts, shall comply with the applicable requirements of the Appliance Efficiency Regulations (Title 20).

9 Compact fluorescent lamps that do not contain a medium screw base sockets (E24/E26).

Column E This page doubles as a field inspection checklist.

Field Inspector Notes: This space is provided for the field inspector to make notes.

Documentation Author's Declaration Statement

The "documentation author" is the person who prepares a Title 24 Part 6 compliance document that must subsequently be reviewed and signed by a responsible person (see below) in order to certify compliance with Part 6. Subject to the requirements of §10-103(a)1 and §10-103(a)2, the person who prepares the Certificate of Compliance documents (documentation authors) shall sign a declaration statement on the documents they prepare to certify the information provided on the documentation is accurate and complete.

A documentation author may have additional certifications such as a Certified Energy Analyst certification number. Enter number in the CEA# field provided, if applicable.

The person's telephone number is given to facilitate response to any questions that arise.

Responsible Person's Declaration Statement

The "responsible person" signing the Certificate of Compliance is required to be eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design, to certify conformance with Part 6. If more than one person has responsibility for the building design, each person (such as an eligible lighting designer) shall sign the Certificate of Compliance document(s) applicable to that portion of the design for which the person is responsible. Alternatively, the person with chief responsibility for the building design shall prepare and sign the Certificate of Compliance document(s) for the entire building design.

