

DOCKETED

Docket Number:	16-BSTD-05
Project Title:	2016 Nonresidential Compliance Manual Subchapters and Documents Related to Lighting Alterations
TN #:	210574
Document Title:	2016-NRCC-LTO-01-E - Certificate Of Compliance, Outdoor Lighting
Description:	2016 Certificate Of Compliance, Outdoor Lighting
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CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 1 of 4)
Project Name:	Date Prepared:

A. General Information	
Project Address:	Total Illuminated Hardscape Area:
Phase of Construction: <input type="checkbox"/> New Construction <input type="checkbox"/> Addition <input type="checkbox"/> Alteration	
Outdoor Lighting Zone (OLZ) <input type="checkbox"/> OLZ-1 <input type="checkbox"/> OLZ-2 <input type="checkbox"/> OLZ-3 <input type="checkbox"/> OLZ-4	
I have confirmed with the AHJ which OLZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114	

B. Lighting Compliance Documents (check box for each document included)	
<i>For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.</i>	
<input type="checkbox"/> NRCC-LTO-01-E	Certificate of Compliance
<input type="checkbox"/> NRCC-LTO-02-E	Outdoor Lighting Controls Certificate of Compliance
<input type="checkbox"/> NRCC-LTO-03-E	Outdoor Lighting Power Allowance Certificate of Compliance
<input checked="" type="checkbox"/> <u>NRCC-LTO-04-E</u>	<u>Outdoor Lighting Existing Conditions Certificate of Compliance</u>

C. Summary of Allowed Outdoor Lighting Power		Watts
<u>01</u>	Sum Total ALLOWED Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1 <u>Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.</u>	=
Complies ONLY if Installed (<u>Box 02</u>) ≤ Allowed (<u>Box 01</u>)		
<u>02</u>	Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3.	

D. Declaration of Required Installation Certificates	
Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify <u>forms-compliance documents</u> are completed and signed.)	
<input type="checkbox"/> NRCI-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input type="checkbox"/> NRCI-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> Field Inspector

E. Declaration of Required Certificates of Acceptance	
Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify <u>forms-compliance documents</u> are completed and signed.)	
<input type="checkbox"/> NRCA-LTO-02-A - Must be submitted for outdoor lighting controls.	<input type="checkbox"/> Field Inspector

F. Schedule of <u>L</u>uminaires <u>e</u>xempt from the <u>e</u>Outdoor <u>L</u>ighting <u>p</u>Power <u>r</u>Requirements in §140.7	
<u>01</u>	<u>02</u>
Name or Symbol	Description of exempt luminaire in accordance with the exemptions



CERTIFICATE OF COMPLIANCE		NRCC-LTO-01-E
Outdoor Lighting		(Page 2 of 4)
Project Name:	Date Prepared:	

G. Schedule of <u>L</u>uminaires <u>e</u>xempt from the <u>e</u>utoff <u>r</u>equirements in §130.2(b)	
<u>01</u>	<u>02</u>
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

H. Schedule of <u>L</u>uminaires <u>e</u>xempt from the <u>e</u>Outdoor <u>L</u>ighting <u>e</u>ontrol <u>r</u>equirements in §130.2(c)	
<u>01</u>	<u>02</u>
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 3 of 4)
Project Name:	Date Prepared:

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist										
Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector		
<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>		<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined		Number of Luminaires	Total Installed Watts in this area (63 x 45)	Primary Function area in which these luminaires are installed <u>(Outdoor Lighting Zone)</u>	BUG Rating	Pass	Fail
			CEC Default from NA8	According to §130.0(c)						
			<input type="checkbox"/>	<input type="checkbox"/>				<u>UH:</u> <u>UL:</u> <u>FVH:</u> <u>BVH:</u> <u>FH:</u> <u>BH:</u>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<u>UH:</u> <u>UL:</u> <u>FVH:</u> <u>BVH:</u> <u>FH:</u> <u>BH:</u>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<u>UH:</u> <u>UL:</u> <u>FVH:</u> <u>BVH:</u> <u>FH:</u> <u>BH:</u>	<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:							Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E, P P page 1.			

CERTIFICATE OF COMPLIANCE		NRCC-LTO-01-E
Outdoor Lighting		(Page 4 of 4)
Project Name:	Date Prepared:	

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"> 1. The information provided on this Certificate of Compliance is true and correct. 2. 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). 3. 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. 4. 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. 5. 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-LTO-01-E User Instructions

If there is outdoor lighting for the newly constructed building or for the addition, or there are any alterations to outdoor lighting, the NRCC-LTO-01-E Certificate of Compliance form document must appear on the plans (usually near the front of the electrical drawings). A copy of these form compliance documents should also be submitted to the enforcement agency along with the rest of the compliance submittal at the time of building permit application. With enforcement agency approval, the applicant may use alternative formats of these form compliance documents (rather than the official Energy Commission forms), provided the information is the same and in a similar format.

Section A. General Information

- PROJECT ADDRESS is the address of the project as shown on the plans and as known to the enforcement agency.
- TOTAL HARDSCAPE ILLUMINATED AREA is the total of the hardscape illuminated area determined in accordance with §140.7(d)1A. This number shall be taken from compliance document NRCC-LTO-03-E, Section A. General Hardscape Lighting Power Allowance from Table 140.7-A, the sum of Column I.
- PHASE OF CONSTRUCTION indicates the status of the outdoor lighting project described in the compliance documents. Refer to Section 1.6 for detailed discussion of the various choices.
 - NEW CONSTRUCTION should be checked for all new outdoor lighting systems.
 - ADDITION should be checked for an addition to a site with an existing outdoor lighting system.
 - ALTERATION should be checked for alterations to an existing outdoor lighting system.
- LIGHTING ZONE is described in Table 10-114-A of the Standards. Default lighting zones shall be used unless the local jurisdiction having authority has conducted a public process to officially amend the outdoor lighting zone of a specific area, and has filed the change with the Energy Commission.

One box shall be checked to declare the lighting zone, and another box shall be checked to declare if the default lighting zone or the amended outdoor lighting zone is used.

Section B. Lighting Compliance Documents

Check all appropriate boxes to indicate which compliance documents are included in the nonresidential lighting compliance documentation package.

Section C. Summary of Allowed Outdoor Lighting Power

A lighting design complies with the lighting power requirements if the installed lighting power is less than or equal to the allowed lighting power. This summary table is used to calculate and document if the project complies with the lighting power requirements.

The values inserted into this table must be calculated and documented on other pages of the lighting compliance documents, as shown in the table.:

Section D. Declaration of Required Certificates of Installation

In addition to the Certificates of Compliance, the Standards also require a number of Certificates of Installation to be submitted to the authority having jurisdiction. See Nonresidential Compliance Manual Chapter 6 for additional information.

This section of the compliance documentation serves as an acknowledgement of, and a declaration that Certificates of Installation are required to be submitted for compliance with the nonresidential lighting Standards. The boxes must be checked for every Certificate of Installation that applies to the job.

The required nonresidential outdoor lighting Certificates of Installation include the following:

- NRCI-LTO-01-E - must be submitted for all buildings. This is the general Certificate of Installation used to declare that what was proposed in the Certificates of Compliance is actually what was installed.:
- NRCI-LTO-02-E - must be submitted whenever a lighting control system, and whenever an Energy Management Control System (EMCS), has been installed to comply with any of the lighting control requirements in the Standards.

Section E. Declaration of Required Certificates of Acceptance

Before an occupancy permit shall be granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor and outdoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance.

This section of the compliance documentation serves as an acknowledgement of, and as a declaration that Certificates of Acceptance are required to be submitted for compliance with the nonresidential lighting Standards. The boxes must be checked for every Certificate of Acceptance that applies to the job.

See Nonresidential Compliance Manual Chapter 6 for additional information.

Instructions to the Designer:

The Acceptance Test forms are to be used by the designer and attached to the plans.

The Acceptance Test Technician is required to perform the acceptance tests and check that all control devices serving the building or space are certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting systems or controls of certain types require a test, list the different lighting and the number of systems. The NA7 Section in the Nonresidential Reference Appendices Manual describes the test. Forms can be grouped by type of Luminaire controlled.

For the Enforcement Agency:

The Certificates of Acceptance compliance documents are not considered complete and are not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the Certificates of Acceptance must be provided to the owner of the building for their records.

The required nonresidential outdoor lighting Certificates of Acceptance include the following:

- NRCA-LTO-02-E - Must be submitted whenever outdoor lighting controls are installed.

Section F. Schedule of ~~Luminaires~~ ~~Exempt from the~~ ~~Outdoor~~ ~~Lighting~~ ~~Power~~ ~~Requirements in~~ §140.7

When more than 50 percent of the light from a luminaire falls on one or more of the Exceptions to §140.7, the lighting power for that luminaire shall be exempt from §140.7(b).

This table is where those exempt luminaires are documented.

- NAME OR SYMBOL shall correspond to the name or symbol on the plans.
- DESCRIPTION – all luminaires included in this column must be in accordance with §140.7.

Section G. Schedule of ~~Luminaires~~ ~~Exempt from the~~ ~~Cutoff~~ ~~Requirements in~~ §130.2(b)

Outdoor luminaires that use lamps rated less than or equal to 150 W (§130.2(b)) in the hardscape areas, parking lots, building entrances, canopies and all outdoor sales areas are exempt from the Uplight and Glare zonal lumen limits as designated in Table 130.2-A. This table is where those exempt luminaires are documented.

- NAME OR SYMBOL shall correspond to the name or symbol on the plans.
- DESCRIPTION – all luminaires included in this column must be in accordance with §130.2(b).

Section H. Schedule of ~~Luminaires~~ ~~Exempt from the~~ ~~Outdoor~~ ~~Lighting~~ ~~Control~~ ~~Requirements in~~ §130.2(c)

Outdoor luminaires are exempted from the outdoor lighting control requirements in the following cases:

- Outdoor lighting not permitted by to be turned OFF for compliance with a health or life safety statute, ordinance, or regulation to be turned OFF.
- Lighting in tunnels required to be illuminated 24 hours per day and 365 days per year. This table is where those exempt luminaires are documented.
- NAME OR SYMBOL shall correspond to the name or symbol on the plans.
- DESCRIPTION – all luminaires included in this column must be in accordance with §130.2(c).

Section I. Outdoor Lighting Luminaire Schedule and Field Inspection Energy Checklist

Outdoor Lighting Zone is the designated outdoor lighting zone for the property where the outdoor luminaires will be located. Check with local jurisdiction having authority over permitting of the property information regarding whether the property is a government designated park, recreation, or wildlife preserve (LZ0 or LZ1). Additionally, look at the U.S. Census website to determine if the property is within a rural area (statewide default LZ2) or urban area (statewide default LZ3). Fill in with one of the following according to the designated outdoor lighting zone of the property: LZ0, LZ1, LZ2, LZ3, or LZ4.

1. NAME OR TAG is the name or symbol used on the plans to identify the luminaire.
2. COMPLETE LUMINAIRE DESCRIPTION is a complete narrative description of the luminaire, including the type of luminaire, number and type of lamps or light sources in the luminaire, and number and type of ballast(s), drivers or generators in the luminaire. For example:
3. WATTS PER LUMINAIRE is the total input wattage of the complete lighting unit in accordance with §130.0(c or d). This is the total rated wattage of the luminaire, including lamp, light source, ballast, driver and/or generator not the nominal wattage of the lamp or light source (bulb) used in the luminaire.
4. HOW WAS WATTAGE DETERMINED? If CEC DEFAULT is checked, this indicates the wattage is a standard value taken from the data in Reference Nonresidential Appendix NA8. If this column is not checked, this indicates the nonstandard values must be substantiated with manufacturer's data sheets and determined according to §130.0(c).
5. NUMBER OF LUMINAIRES is the number of luminaires of the identical type used for this particular function area.
6. TOTAL INSTALLED WATTS is determined by the product of the watts per Luminaire (I04) and the number of luminaires (I07).
7. Location is the primary function area in which the luminaires are installed.
8. BUG Rating is the Backlight, Uplight, Glare rating.
9. FIELD INSPECTOR, this column is reserved for the field inspector whom determines if the system installed matches the forms compliance documents. The inspector is to indicate in this column whether the system passes or fails.

Documentation Author

The "documentation author" is the person who prepared the energy compliance documentation and who signs the Declaration Statement. The person's telephone number is given to facilitate response to any questions that arise. A Documentation Author may have additional certifications such as a Certified Energy Analyst certification number. Enter number in the CEA# box field provided if applicable.

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.

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