

**OUTDOOR LIGHTING ACCEPTANCE TESTS**CEC-NRCA-LTO-02-A (Revised MM/YY)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF ACCEPTANCE		NRCA-LTO-02-A
Outdoor Lighting Acceptance Tests		(Page 1 of 4)
Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:

<i>Note: Submit one Certificate of Acceptance for each system that must demonstrate compliance.</i>	Enforcement Agency Use: Checked by/Date
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<b>NA7.8.1 and NA7.8.2.2 Outdoor Motion Sensor Acceptance</b>
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<b>A. Construction Inspection</b>	
01. Motion Sensor Construction Inspection	
<input type="checkbox"/>	Motion sensor has been located to minimize false signals.
<input type="checkbox"/>	Sensor is not triggered by motion outside of controlled area.
<input type="checkbox"/>	Desired motion sensor coverage is not blocked by obstruction that could adversely affect performance.
<input checked="" type="checkbox"/>	<del>The lighting power of each luminaire is set to reduce by at least 40 percent but no more than 80 percent, in the unoccupied condition</del>
<input checked="" type="checkbox"/>	<del>No more than 1,500 watts of lighting power is controlled together, by the same sensor or group of sensors</del>

<b>B. Functional Testing</b>	
01. Simulate motion <del>of a pedestrian</del> in area under lights controlled by the motion sensor. Verify and document the following:	
<input type="checkbox"/>	Status indicator operates correctly.
<input type="checkbox"/>	Lights controlled by motion sensors turn on immediately upon entry into the area lit by the controlled lights near the motion sensor.
<input type="checkbox"/>	Signal sensitivity is adequate to achieve desired control.
02. Simulate no motion in area with lighting controlled by the sensor <del>but with pedestrian motion adjacent to this area</del> . Verify and document the following:	
<input checked="" type="checkbox"/>	<del>Lights controlled by the sensor reduce light output within a maximum of 30 minutes from the start of an unoccupied condition.</del>
<input type="checkbox"/>	The <del>occupant</del> sensor does not trigger a false "on" from movement outside of the controlled area.
<input type="checkbox"/>	Signal sensitivity is adequate to achieve desired control.

<b>NA7.8.3 and NA7.8.4 Photocontrol</b>
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<b>C. Construction Inspection</b>	
01. Verify and document the following:	
<input checked="" type="checkbox"/>	<del>The photocontrol is installed.</del>

<b>D. Functional Testing</b>	
01. Verify and document the following:	
<input checked="" type="checkbox"/>	<del>During daytime simulation, all controlled outdoor lights are turned off.</del>
<input checked="" type="checkbox"/>	<del>During nighttime simulation, all controlled outdoor lights are turned on.</del>

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**NA7.8.5 and NA7.8.6 Astronomical Time-Switch Control****E. Construction Inspection**01. Prior to Functional Testing, confirm and document the following:

- Verify the astronomical time-switch control is installed.
- Verify the astronomical time switch control is programmed with acceptable ON schedule and OFF schedule.
- Demonstrate and document for the time switch programming including ON schedule and OFF schedule, for weekday, weekend, and holidays (if applicable).
- Verify the correct time and date is properly set in the control.

**F. Functional Testing**01. Verify and document the following:

- During daytime simulation, all controlled outdoor lights are turned off.
- During nighttime simulation, all controlled outdoor lights are turned on in accordance with the astronomical schedule.
- During nighttime simulation, all controlled outdoor lights are turned off in accordance with the programmed schedule.

**NA7.8.7 and NA7.8.8 Part-Night Outdoor Lighting Control****G. Construction Inspection**01. Prior to Functional Testing for time based control type, confirm and document the following:

- Verify the part-night outdoor lighting control is installed.
- Verify the control is programmed with acceptable schedules.
- Demonstrate and document for the lighting control programming including both ON schedule and OFF schedule, for weekday, weekend, and holidays (if applicable).
- Verify the correct time and date is properly set in the control.

02. Prior to Functional Testing for occupancy-based control type, verify and document the following:

- Sensor has been located to minimize false signals.
- Sensor is not triggered by motion outside of adjacent area.
- Desired sensor coverage is not blocked by obstructions that could adversely affect performance.

**H. Functional Testing**01. For time-based control type, verify and document the following:

- During daytime simulation, all controlled outdoor lights are turned off.
- During nighttime simulation, all controlled outdoor lights are turned on in accordance with the ON schedule.
- During nighttime simulation, all controlled outdoor lights are turned off or reduced in light level in accordance with the OFF schedule.

02. For occupancy-based control type, verify and document the following:

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**Step 1: Simulate motion in area under lights controlled by the sensor.**

- Status indicator operates correctly.
- Lights controlled by sensors turn on immediately upon entry into the area lit by the controlled lights near the motion sensor.
- Signal sensitivity is adequate to achieve desired control.

**Step 2: Simulate no occupancy in areas with lighting controlled by the sensor.**

- Lights controlled by the sensor are off or reduces light output within a maximum of 30 minutes from the start of an unoccupied condition.
- The sensor does not trigger a false "on" from movement outside of the controlled area.
- Signal sensitivity is adequate to achieve desired control.

**NA7.8.9 and NA7.8.10 Automatic Scheduling Control****I. Construction Inspection****01. Prior to Functional Testing, confirm and document the following:**

- Verify the automatic scheduling control is installed.
- Verify the control is programmed with acceptable schedules.
- Demonstrate and document for the lighting control programming including both ON schedule and OFF schedule, for weekday, weekend, and holidays (if applicable).
- Verify the correct time and date is properly set in the control.

**J. Functional Testing****01. Verify and document the following:**

- During daytime simulation, all controlled outdoor lights are turned off.
- During nighttime simulation, all controlled outdoor lights are turned on in accordance with the ON schedule.
- During nighttime simulation, all controlled outdoor lights are turned off in accordance with the OFF schedule.

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<b>DOCUMENTATION AUTHOR'S DECLARATION STATEMENT</b>		
1. I certify that this Certificate of Acceptance documentation is accurate and complete.		
Documentation Author Name:	Documentation Author Signature:	
Documentation Author Company Name:	Date Signed:	
Address:	CEA/ATT Certification Identification (If applicable):	
City/State/Zip:	Phone:	
<b>FIELD TECHNICIAN'S DECLARATION STATEMENT</b>		
I certify the following under penalty of perjury, under the laws of the State of California:		
<ol style="list-style-type: none"> <li>The information provided on this Certificate of Acceptance is true and correct.</li> <li>I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician).</li> <li>The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7.</li> <li>I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building.</li> </ol>		
Field Technician Name:	Field Technician Signature:	
Field Technician Company Name:	Position with Company (Title):	
Address:	ATT Certification Identification (if applicable):	
City/State/Zip:	Phone:	Date Signed:
<b>RESPONSIBLE PERSON'S DECLARATION STATEMENT</b>		
I certify the following under penalty of perjury, under the laws of the State of California:		
<ol style="list-style-type: none"> <li>I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance.</li> <li>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 Acceptance and attest to the declarations in this statement (responsible acceptance person).</li> <li>The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7.</li> <li>I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building.</li> <li>I will ensure that a completed, signed copy of this Certificate of Acceptance 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 signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy.</li> </ol>		
Responsible Acceptance Person Name:	Responsible Acceptance Person Signature:	
Responsible Acceptance Person Company Name:	Position with Company (Title):	
Address:	CSLB License:	
City/State/Zip:	Phone:	Date Signed:

**NRCA-LTO-02-A User Instructions****Construction Inspection (Pre-test Inspection)**

This section consists of check boxes. Complete check boxes as instructed.

**Functional Testing**

This section requires data entry by following individual test procedures.

**Certification Statement**

The statement of compliance is signed by the person responsible for performing the test and verifying system performance. The signatory provides the following: name; company name; signature and date signed; as well as license number and expiration date.