| DOCKETE | DOCKETED | | | | | |
|------------------------|--|--|--|--|--|--|
| Docket Number: | 16-BSTD-05 | | | | | |
| Project Title: | 2016 Nonresidential Compliance Manual Subchapters and Documents Related to Lighting Alterations | | | | | |
| TN #: | 210570 | | | | | |
| Document Title: | 2016-NRCC-LTI-01-E - Certificate Of Compliance, Indoor Lighting | | | | | |
| Description: | 2016 Certificate Of Compliance - Indoor Lighting | | | | | |
| Filer: | Peter Strait | | | | | |
| Organization: | California Energy Commission | | | | | |
| Submitter Role: | Commission Staff | | | | | |
| Submission Date: | 3/1/2016 2:40:23 PM | | | | | |
| Docketed Date: | 3/1/2016 | | | | | |

STATE OF CALIFORNIA

CEC-NRCC-LTI-01-E (Revised 02/16) CERTIFICATE OF COMPLIANCE CALIFORNIA ENERGY COMMISSION

NRCC-LTI-01-E (Page 1 of 6)

Indoor Lighting

Project Name:

Date Prepared:

| A. General Information | | | | | | | | | | | |
|---|------------------|---------------------------|----------------------------|--|--------------------|-------------|----------------------|--|--|--|--|
| Climate Zone: | Condition | ionditioned Floor Area-: | | | | | | | | | |
| | Unconditio | nconditioned Floor Area-: | | | | | | | | | |
| Building Type:Image: DescriptionImage: De | | | | | | Hotel/Motel | | | | | |
| □ Schools | | | Relocatable Public Schools | | Conditioned Spaces | | Unconditioned Spaces | | | | |
| Phase of Construction: | | | New Construction | | Addition | | Alteration | | | | |
| Method of Compliance: Image: Complete Building Image: Area Category Image: Complete Building Image: CompleteBuilding Image: CompleteBuilding | | | | | | Tailored | | | | | |
| Project Address: | Project Address: | | | | | | | | | | |

| B. Lighting Compliance Documents (select yes for each document included) | | | | | | | | | |
|--|--|------------------------|--|--|--|--|--|--|--|
| For detailed insti | 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. | | | | | | | | |
| YES NO FORM TITLE | | | | | | | | | |
| | | NRCC- <u>LTI</u> -01-E | Certificate of Compliance. All Pages required on plans for all submittals. | | | | | | |
| | | NRCC- <u>LTI</u> -02-E | Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals. | | | | | | |
| | | NRCC- <u>LTI</u> -03-E | 03-E Indoor Lighting Power Allowance | | | | | | |
| | | NRCC- <u>LTI</u> -04-E | -04-E Tailored Method Worksheets | | | | | | |
| | Image: NRCC-LTI-05-E Line Voltage Track Lighting Worksheets | | | | | | | | |
| | | NRCC-LTI-06-E | Existing Conditions Worksheet | | | | | | |



| STATE OF CALIFORNIA INDOOR LIGHTING | <u>@</u> |
|-------------------------------------|------------------------------|
| CEC-NRCC-LTI-01-E (Revised 02/16) | CALIFORNIA ENERGY COMMISSION |
| CERTIFICATE OF COMPLIANCE | NRCC-LTI-01-E |
| Indoor Lighting | (Page 2 of 6) |
| Project Name: | Date Prepared: |

| C. Summary of Allowed Lighting Power | | | | | | | |
|--|--|-------------|---|--|--------------|-------|--|
| Conditioned and Unconditioned space Lighting must not be combined for compliance | | | | | | | |
| | Indoor Lighting Power for Conditioned Spaces | | Indoor Lighting Power for Unconditioned Space | es | | | |
| | | | Watts | | | Watts | |
| | Installed Lighting | | | Installed Lighting | | | |
| <u>0</u> 1 . | NRCC-LTI-01-E, <u>Table H,</u> page <u>5</u> 4 | + | | NRCC-LTI-01-E, <u>Table H,</u> page <u>5</u> 4 | + | | |
| 02- | Portable Only for Offices | + | | | | | |
| <u>v</u> 2. | NRCC-LTI-01-E, <u>Table G,</u> page 3 4 | • | | | | | |
| 03- | Minus Lighting Control Credits | - | | Minus Lighting Control Credits | - | | |
| <u>o</u> 5. | NRCC-LTI-02-E, page 2 | | | NRCC-LTI-02-E, page 2 | | | |
| 04- | Adjusted Installed Lighting Power | _ | | Adjusted Installed Lighting Power | _ | | |
| <u>0</u> 4 . | (row 1 plus row 2 minus row 3) | - | | (row 1 minus row 3) | - | | |
| | Complies ONLY if Installed ≤ Allowed <u>(Box 04 < Box 0</u> |) <u>5)</u> | | Complies ONLY if Installed ≤ Allowed (Box 04 < Box | <u>x 05)</u> | | |
| | Allowed Lighting Power | | | Allowed Lighting Power | | | |
| | Conditioned NRCC-LTI-03-E, page 1 | | | Unconditioned NRCC-LTI-03-E, page 1 | | | |
| OF | | | | | | | |
| Alterations with replacement luminaires that have at least | | | | Alterations with replacement luminaires that have at least 50/3 | <u>35%</u> | | |
| | 50/35% lower power compared to the original existing lumina | ires, | | lower power compared to the original existing luminaires, ma | ay | | |
| | may instead use the allowed wattage from NRCC-LTI-06, pag | <u>e 2</u> | | instead use the allowed wattage from NRCC-LTI-06, page 2 | | | |

| D. Declaration of Required Installation-Certificates of Installation | | | | | | | | |
|--|--|---|-------------------|--|--|--|--|--|
| Declare by | Declare by selecting yes for all Installation of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.) | | | | | | | |
| YES NO Form/Title | | | | | | | | |
| | | NRCI-LTI-01-E - Must be submitted for all buildings | □ Field Inspector | | | | | |
| | | NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance. | □ Field Inspector | | | | | |
| | | NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance. | □ Field Inspector | | | | | |
| | | NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance. | □ Field Inspector | | | | | |
| | | NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance. | □ Field Inspector | | | | | |
| | | NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance. | □ Field Inspector | | | | | |

| STATE OF CALIFORNIA INDOOR LIGHTING | |
|-------------------------------------|------------------------------|
| CEC-NRCC-LTI-01-E (Revised 02/16) | CALIFORNIA ENERGY COMMISSION |
| CERTIFICATE OF COMPLIANCE | NRCC-LTI-01-E |
| Indoor Lighting | (Page 3 of 6) |
| Project Name: | Date Prepared: |

| E. Declaration of Required Certificates of Acceptance | | | | | | | | |
|---|---|---|-------------------|--|--|--|--|--|
| Declare by | Declare by checkingselecting yes for all of the Certificates of Acceptance that will be submitted. (Retain copies and verify forms are completed and signed.) | | | | | | | |
| YES | YES NO <u>FORM/TITLE</u> | | | | | | | |
| | | NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls. | □ Field Inspector | | | | | |
| | | NRCA-LTI-03-A - Must be submitted for automatic daylight controls. | □ Field Inspector | | | | | |
| | | NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls. | Field Inspector | | | | | |

A <u>s</u>eparate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. -Installed Lighting Power listed on this Lighting Schedule is only for: CONDITIONED SPACE
UNCONDITIONED SPACE

F. Indoor Lighting Schedule and Field Inspection Energy Checklist

The actual indoor lighting power listed on this page and on the next 2 pages includes all installed permanent and planned portable lighting systems.

U When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.

U When Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines

Also include track lighting in schedule, and submit the track lighting compliance <u>document</u> (NRCC-LTI-05-E) when line-voltage track lighting is installed.

STATE OF CALIFORNIA INDOOR LIGHTING CEC-NRCC-LTI-01-E (Revised 02/16) CERTIFICATE OF COMPLIANCE Indoor Lighting Project Name: Date Prepared:

| G. Installed Portable Luminaires in Offices – | Exception to |) Sectio | n 140.6(a) | | | | | | | |
|---|--|----------------------|--|-------------------------------|---|--|--|---|-----------------------|---------|
| This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1)All other planned portable luminaires shall be documented on next page of this compliance formdocument. This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems. | | | | | | | | | | |
| Office Portable Luminaire Schedule | Office Portable Luminaire Schedule Office Installed Portable Luminaire Watts Per Square Foot/ft ² Office Location Field Inspector | | | | | | | | | spector |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |) |
| Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted direct/indirect) | Watts per Luminaire | Number of Luminaires | Installed portable luminaire watts in this office (<u>G02</u> x <u>EG03</u>) | Square feet of this office | Watts per square foot (D-G04 / <u>G05E)</u> | If F ≤ 0.3, enter zero; if FG06 > 0.3, (FG06 - 0.3) | E-<u>G05</u> x G <u>07</u> | Identify Office area in which these portable luminaires are installed | Pass | Fail |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Total installed portable luminaire wa | tts that are ${}_{\!$ | greater | than 0.3 <mark>W/f</mark> | t ² watts pe | er square fo | oot per office: | | Enter sum total of al NRCC-LTI-01-E; | l pages int Page 1 | 0 |

| STATE OF CALIFORNIA INDOOR LIGHTING | <u>(@)</u> |
|-------------------------------------|------------------------------|
| CEC-NRCC-LTI-01-E (Revised 02/16) | CALIFORNIA ENERGY COMMISSION |
| CERTIFICATE OF COMPLIANCE | NRCC-LTI-01-E |
| Indoor Lighting | (Page 5 of 6) |
| Project Name: | Date Prepared: |

A <u>sS</u>eparate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. -Installed Lighting Power listed on this Lighting Schedule is only for:

| H. Indoor | 1. Indoor Lighting Schedule and Field Inspection Energy Checklist | | | | | | | | | |
|-----------------------------|--|-----------------------|-------------------------------|---------------------------|---------------------|---|---|------------------------------|------|--|
| | Luminaire Schedule | | Ir | stalled Wa | tts | - | Location | Field Inspector ¹ | | |
| <u>A01</u> | <u>B02</u> | C<u>03</u> | € <u>03</u> ₽ <u>04</u> | | <u>€05</u> | <u>∓06</u> | G<u>07</u> | H <u>08</u> | | |
| | | 5 0) | How wattage was determined | | S | ed area i E) | | | | |
| Name or Item Tag | (i.e, 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballast) | Watts pe Luminair | CEC Default from NA8 | According to §130.0(c) | Number Luminaire | Total Instal Watts in this (C<u>H03</u> x <u>H0</u> | Primary Function area in which these luminaires are installed | Pass | Fail | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| INSTALLED WATTS PAGE TOTAL: | | | | | | | Enter sum total of all pages into NRCC-LTI-01-E; Page 2 | | | |

STATE OF CALIFORNIA

CEC-NRCC-LTI-01-E (Revised 02/16)

CALIFORNIA ENERGY COMMISSION

NRCC-LTI-01-E (Page 6 of 6)

Project Name:

Date Prepared:

| DOCUMENTATION AUTHOR'S DECLARATION STATEMENT | | |
|---|---|--|
| 1 L 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: | |
| PESDONSIBIE DEDSON'S DECLADATION 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 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 manufac | ctured 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 Co | de of Regulations. | |
| 4. The building design features or system design features identified on this Certificate of Con | npliance are consistent with the information provided on other applicable compliance | |
| documents, worksheets, calculations, plans and specifications submitted to the enforcement | ent 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 c | opy 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: | |
| <u>^</u> | | |
| Company : | Date Signed: | |
| Address: | License: | |
| | | |
| City/State/Zip: | Phone: | |
| | | |

NRCC-LTI-01-E User Instructions

This compliance document has multiple pages. Each page must appear on the plans (usually near the front of the electrical drawings). A copy of the document 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 documents (rather than the official Energy Commission documents), 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.
- Climate Zone is the California climate zone in which the project is located. See Reference Joint Appendix JA2 for a listing of climate zones.
- Building CFA is the total conditioned floor area of the building as defined in §100.1(b). For additions, the total conditioned floor area is the total area of the addition alone. For alterations, the total conditioned floor area refers to only to the altered floor area.
- Unconditioned Floor Area is the total floor area of unconditioned space, as defined in §100.1(b). For additions, the total unconditioned floor area refers to the addition alone. For alterations, the total unconditioned floor area refers to the altered floor area.
- "Building Type" is specified because there are special requirements for high-rise residential and hotel/motel guest room occupancies. All other occupancies
 that fall under the Nonresidential Standards are designated "Nonresidential" including schools. It is possible for a building to include more than one occupancy
 type. See §100.1(b) for the formal definitions of these occupancies. All appropriate boxes shall be checked:
 - o **Nonresidential** if the project includes nonresidential indoor lighting.
 - High-Rise Residential if the project includes common areas of a high-rise residential building. Common areas are any interior areas which are not dwelling units. If this project also includes dwelling units, the residential lighting compliance documentation must also be completed and submitted.
 - Hotel/Motel if the project includes common areas in a hotel or motel. Common areas of a hotel/motel include any interior areas which are not dwelling units. If the project also includes dwelling units, the low-rise residential lighting compliance documentation must also be completed and submitted.
 - o Schools, which includes relocatable buildings on the school site.
 - o Conditioned Spaces as defined in §100.1(b).
 - o Unconditioned Spaces as defined in §100.1(b).
- Phase of Construction indicates the status of the building project described in the compliance documents.
 - <u>New Ceonstruction should be checked for all newly constructed buildings, newly conditioned space or for new construction to existing buildings</u> (tenant improvements).
 - Addition should be checked for an addition that is not treated as a stand-alone building.
 - Alteration should be checked for alterations to an existing building lighting system in accordance with §141.0(b). This includes Entire Luminaire
 Alterations in accordance with §141.0(b)2l; Luminaire Component Modifications in accordance with §141.0(b)2k. Note that tenant improvements are usually alterations.
- Method of Compliance indicates the method of compliance used for the project. See Nonresidential Compliance Manual Chapter 5 for additional information.
 - Complete Building Method
 - <u>Area Category Method</u>
 - o Tailored Method

| CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS | NRCC-LTI-01-E |
|---|---------------|
| Indoor Lighting | (Page 2 of 5) |

Section B. Lighting Compliance Documents

<u>Check all appropriate boxes on the bottom of page 1 to indicate which compliance documents are included in the nonresidential lighting compliance documentation</u> <u>package.</u>

Section C. Summary of Allowed Lighting Power Compliance

<u>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.</u>

Because lighting power tradeoffs are not allowed between conditioned and unconditioned spaces, indoor lighting power for conditioned spaces is documented only on the left side of the table, while indoor lighting power for unconditioned spaces is documented only on the right side of the table.

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

Allowed Lighting Power for Conditioned Spaces

To document allowed lighting power for indoor conditioned spaces, use only supporting compliance documents which have been checked as conditioned space, and use that information to fill out the left side of the table as follows:

- 1. Enter the sum total installed lighting power calculated on the bottom of page 4 of NRCC-LTI-01-E
- 2. Only for offices, enter the sum total installed portable luminaire watts that are greater than 0.3 watts per square foot per office, as calculated in section B on page 3 of NRCC-LTI-01-E.
- 3. Enter the lighting control credits for conditioned spaces, as calculated on the bottom of page 2 of NRCC-LTI-02-E
- 4. Calculate the adjusted installed lighting power by adding the numbers in rows 1 and 2 together, then subtracting the number in row 3.
- 5. Enter the allowed lighting power, documented in section A; page 1 of NRCC-LTI-03-E

The project complies with the allowed lighting power for indoor conditioned spaces only if the number in row 4 is equal to or smaller than the number in row 5.

Allowed Lighting Power for Unconditioned Spaces

To document allowed lighting power for indoor unconditioned spaces, use only supporting compliance documents which have been checked as unconditioned space, and use that information to fill out the right side of the table as follows:

- 1. Enter the sum installed lighting power calculated on the bottom of page 4 of NRCC-LTI-01-E
- 2. This row is not used for unconditioned spaces
- 3. Enter the lighting control credits for unconditioned spaces, as calculated on the bottom of page 2 of NRCC-LTI-02-E
- 4. Calculate the adjusted installed lighting power by subtracting the number in row 3 from the number in row 1
- 5. Enter the allowed lighting power, documented in section A; page 1 of NRCC-LTI-03-E

The project complies with the allowed lighting power for indoor unconditioned spaces only if the number in row 4 is equal to or smaller than the number in row 5.

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. 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 indoor lighting Certificates of Installation include the following:

• NRCI-LTI-01-E - must be submitted for all buildings. This is the general Certificate of Installation used to declare what was proposed in the Certificates of Compliance is actually what was installed.

| CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS | NRCC-LTI-01-E |
|---|---------------|
| Indoor Lighting | (Page 3 of 5) |

In addition to the NRCI-LTI-01-E, the following Certificates of Installation are also required if the job includes any of the measures covered by these Certificates of Installation. If any of the requirements in any of these Certificates of Installation fail the respective installation requirements, then that application shall not be recognized for compliance with the lighting Standards.

- NRCI-LTI-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.
- NRCI-LTI-03-E Must be submitted whenever a line-voltage track lighting integral current limiter, and whenever a supplementary overcurrent protection panel, has been installed and used to determine the installed wattage of any line-voltage track lighting system. Note that a supplementary overcurrent protection panel shall be recognized for use only with line-voltage track lighting._z

Note: In addition to submitting the NRCI-LTI-03-E after installation, the Standards require the NRCC-LTI-05-E (Line-Voltage Track Lighting Worksheet) to be included with the Certificates of Compliance whenever any type of line-voltage track lighting is installed in a project.

- NRCI-LTI-04-E Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.
- NRCI-LTI-05-E Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.
- NRCI-LTI-06-E Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.

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 section 5.4.6 of this chapter for additional information.

Instructions to the Designer:

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

The tester is required to check the acceptance tests and list all control devices serving the building, or space, shall be 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. FormsCompliance documents 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 compliance documents 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.

<u>The required nonresidential indoor lighting Certificates of Acceptance include the following:</u>

- NRCA-LTI-02-E Must be submitted whenever occupancy sensors or automatic time switch controls are installed.
- NRCA-LTI-03-E Must be submitted whenever automatic daylight controls are installed.
- NRCA-LTI-04-E Must be submitted whenever demand responsive lighting controls are required by the Standards.

| CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS | NRCC-LTI-01-E |
|---|---------------|
| Indoor Lighting | (Page 4 of 5) |

• NRCA-LTI-05-E - Must be submitted whenever institutional tuning power adjustment factors are installed.

Section F. Indoor Lighting Schedule and Field Inspection Energy Checklist

The check boxes serve as declaration statements for which the person signing the document is taking responsibility. All relevant boxes are required to be checked.

Section G. Installed Portable Luminaires in Offices – Exception to §140.6(a)

Planned portable lighting in offices is treated differently than planned portable lighting in all other function areas. This section is used to calculate and document any office spaces in which there are plans to install portable lighting.

Planned portable lighting in all other function areas (function areas which are not defined by §100.1(b) of the Standards as offices) shall be entered directly into the luminaire schedule in Section C, of NRCC-LTI-01-E.

The portable lighting in each office must be calculated on separate rows, as follows:

- <u>1.</u> **Complete Luminaire Description** this is a description sufficient to identify the luminaire
- 2. Watts per Luminaire portable luminaires shall be classified and input wattage shall be determined in accordance with §130.0(c)
- 3. Number of Luminaires This is the number of planned portable luminaires ins this particular office.
- 4. Installed **POrtable ILuminaire wWatts in this eOffice** This shall be calculate by multiplying the watts per portable luminaire in G02 times by the number of luminaires in G03.
- 5. **Square #Feet of the Office** This is the square feet of only the office represented on this row of the table.
- 5. Watts per sSquare fFoot this is calculated by dividing the installed portable luminaire watts in this office from G04 by the square feet of office from G05.
- 7. Calculate any planned portable lighting for this office that is in excess of 0.3 watts per square foot. If the number in G06 is less than or equal to 0.3 watts per square foot, enter zero in this cell. If the number in G06 is more than 0.3 watts per square foot, then subtract 0.3 from the number in column FG06 and enter that number in G07.
- 8. Accountable Watts Calculate accountable watts by multiplying the square feet of office in G05 times the number in G07.
- 9. Office Location Identify this office area
- 10. Check boxes are available for the field inspector to pass or fail the documentation and calculation of installed portable luminaires.

The sum total of office planned portable luminaire watts, which are greater than 0.3 watts per square foot of per office, shall be entered on the bottom of this pagesection. That sum total number shall also be inserted into the summary of lighting power compliance table, row 2, on the NRCC-LTI-01-E.

Section H. Indoor Lighting Schedule and Field Inspection Energy Checklist

This section serves the purpose of documenting the luminaire schedule, calculating installed watts, and check boxes used by the field inspect to pass or fail the documentation and calculation of all of the installed luminaires for the job. This luminaire schedule shall include all permanently installed lighting, and all planned portable lighting in rooms which are not offices.

The lighting in each function area must be calculated on separate rows. However, rooms which are typical (typical means having the identical function area as defined in §100.1(b) of the Standards, as well as having the identical lighting system) may be combined into a single row, provided the combined information is clear to the building inspector.

Fill out each separate row as follows:

- 1. Name of Item Tag is the name or symbol used on the plans to identify the luminaire.
- 2. **Complete Luminaire Description** is a complete description of the luminaire, including the type of luminaire, number and type of lamps in the luminaire, and number and type of ballast(s) in the luminaire. For example:
- 3. Watts per Luminaire luminaires shall be classified and watts shall be determined in accordance with §130.0(c); or an alternate method to determine luminaire watts is to use default wattage specifically listed in Reference Nonresidential Appendix NA-8. See section 5.3 of this chapter for additional information.

| CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS | NRCC-LTI-01-E |
|---|---------------|
| Indoor Lighting | (Page 5 of 5) |

4. How Wattage was Determined - Check the appropriate box to indicate if wattage was determined in accordance with Reference Nonresidential Appendix NA-8 or §130.0(c).

5. **Number of Luminaires** – is the number of luminaires of this type for the function area identified on this row.

6. Total iInstalled wWatts in this aArea – is calculated by multiplying the watts per luminaire in H03, by the number of luminaires in H05.

7. **Location** – Identify the location of the luminaire so that the inspector can locate this primary function area.

8. Check boxes used by field inspector to pass or fail the documentation and calculation of installed luminaires.

The sum total wattage of installed luminaires documented on this page shall be inserted into the cell at the bottom of H06. Enter the same number into the cell on the bottom of H08.

If more than one page is required to document and calculate the wattage of all installed luminaires, enter the total wattage from all of these pages into the cell at the bottom of H08.

Enter the sum total installed lighting wattage (the number in the cell at the bottom of H08) into the summary of lighting power compliance table, row 1, on the NRCC-LTI-01-E.

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# or CEPE# boxfield 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 conformancecompliance 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.