

LINE-VOLTAGE TRACK LIGHTING WORKSHEET

CEC-NRCC-LTI-05-E (Revised MM/YY)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE		NRCC-LTI-05-E
Indoor Lighting – Line-Voltage Track Lighting Worksheet		(Page 1 of 2)
Project Name:	Date Prepared:	

There are four different methods available for determining how many watts of line-voltage track or line-voltage busway has been installed. One or more methods may be used to determine how many watts of line-voltage track or line-voltage busway has been installed. Use this worksheet to separately calculate the input wattage for each system.

Separately enter each row of this worksheet into the Luminaire Schedule in Section H of NRCC-LTI-01-E

Method 1 is the only option available for determining wattage for track or busway rated for more than 20 amperes

A. METHOD 1 – VOLT-AMPERE (VA) RATING OF THE BRANCH CIRCUIT(S)

<u>01</u>	<u>02</u>
BRANCH CIRCUIT NAME OR ID	VOLT-AMPERE (VA) RATING OF THE BRANCH CIRCUIT

B. METHOD 2 – USE THE HIGHER OF 45 WATTS PER LINEAR FOOT OF TRACK OR TOTAL RATED WATTAGE OF ALL LUMINAIRES

<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>
Track or Name #	Linear Feet of Track	(W/LF)	<u>B02</u> x <u>B03</u> (W)	TOTAL RATED WATTAGE OF ALL LUMINAIRES	LARGER OF (<u>B04</u> or <u>B05</u>)
		45			
		45			
		45			

C. METHOD 3 – USE THE HIGHER OF: 12.5 WATTS / LINEAR FOOT OF TRACK – OR VA RATING OF INTEGRAL CURRENT LIMITER

- Only integral current limiters which are certified to the Energy Commission shall be recognized by the Standards.
 This method shall not be recognized if an Installation Certificate is not submitted.

<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>
Track or Name #	Linear Feet of Track	(W/LF)	<u>C02</u> x <u>C03</u> (W)	VA Rating of Integral Current Limiter	Larger of (<u>C04</u> or <u>C05</u>)
		12.5			
		12.5			
		12.5			

D. METHOD 4 - DEDICATED TRACK LIGHTING SUPPLEMENTARY OVERCURRENT PROTECTION PANEL

- This method shall not be recognized if an Installation Certificate is not submitted.
 This method shall be used only for line-voltage track lighting, and shall not be recognized for any other lighting systems. If any other lighting systems or devices are installed, the supplementary overcurrent protection panel shall not be recognized for compliance with the Standards

<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>
NAME OR ID	Voltage of the Branch Circuit	Sum of the Ampere Rating of all Devices installed in the Panel	Wattage = Sum of the Ampere Ratings of all of the Devices Times The Branch Circuit Voltage (<u>D02</u> x <u>D03</u>)



CERTIFICATE OF COMPLIANCE		NRCC-LTI-05-E
Indoor Lighting – Line-Voltage Track Lighting Worksheet		(Page 2 of 2)
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"> 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-LTI-05-E User Instructions

The Line Voltage Track Lighting Worksheet is required to document the luminaire input wattage calculation of all installed line voltage track and busway lighting systems. (Line voltage track typically operates around 120 volts or greater).

The Standards provide no other methods for calculating the input wattage of line-voltage track.

Each of the track lighting systems documented and calculated in this worksheet shall also be separately listed in the Luminaire Schedule in Section H of NRCC-LTI-01-E.

There are four different methods available for determining track and busway lighting input wattage as follows:

Choose one of the four methods for each track and busway lighting system.

Section A. Method 1 - Volt-Ampere (VA) Rating of the Branch Circuit(s) Feeding the Tracks or Busway

Method 1 is the only option available for determining wattage for track or busway rated for more than 20 amperes, and it is one of the four options available for determining track or busway rated for 20 amperes or less.

Note: The Standards do not allow the VA rating to be devalued by 20%, even though the California Electric Code does require circuits to be loaded to no more than 80% of their capacity. The energy Standards are not the same as the Electric Code

If using this method to determine track or busway lighting power, check the box to the left of “Method 1.

- A01 – Branch Circuit Name or ID is the name or number that identifies the branch circuit feeding the track. This column must be filled for all branch circuits feeding track lighting systems.
- A02: VOLT-AMPERE RATING list the volt-ampere rating of the branch circuit identified in column A. Fill out this column only when you are using the VA of the branch circuit to determine the wattage of the track(s). If integral current limiters are used to determine the wattage of the tracks, do not use this method.

Section B. Method 2 – Use the Higher of: 45 watts per linear foot of track or the maximum

If using this method to determine track or busway lighting power, check the box to the left of “Method 2.”

- B01 - Track Number or Name is the name or number that identifies the track lighting and should correspond to the plans.
- B02 – Linear feet of Track is the length of track measured in linear feet.
- B03 – Watts per linear foot is 45 W/lf. This is the number that is required when using Method 2.
- B04 – Watts calculated by multiplying the linear feet (B02) by the assumed watts per linear feet (column B03).
- B05 – Total Rated Wattage is the rated wattage of each luminaire (track head) that will be installed on the line voltage track identified in B01 according to §130.0(c).
Note: Luminaire wattage is based upon the rating of the track head, not the wattage of the bulb that is screwed into the track head.
- B06: Watts Installed is the larger of B04 or B05. This is the installed lighting power for the track listed in column A.

Section C. Method 3 – Use the Higher of: 12.5 watts per linear foot of track or the VA rating of the integral current limiter.

If using this method to determine track or busway lighting power, check the box to the left of “Method 3.”

Also, check the box to declare that the integral current limiter has been certified to the Energy Commission. This method may be used only for Track Lighting Integral Current Limiters which have been certified to the Energy Commission, and listed on the Energy Commission database of certified devices. Devices which have not been certified to the Energy Commission and other assembly of controls shall not qualify as Track Lighting Integral Current Limiters.

A Certificate of Installation must also be submitted in order for the Track Lighting Integral Current Limiter to be recognized for compliance with the Standards.

- C01: Track Number or Name is the name or number that identifies the track lighting and should correspond to the plans.
- C02: Linear Feet of Track is the length of track measured in linear feet.
- C03: Watts per Linear Foot is 12.5 W/lf. This is the number required for using Method 3.
- C04: Watts Calculated by multiplying the linear feet (C02) by the assumed watts per linear feet (column C).
- C05: VA Rating is the volt-ampere rating of the integral current limiter controlling the track or busway as specified in §110.9 and §130(c)
- C06: Watts Installed is the larger of C04 or column C05. This is the installed lighting power for the track listed in column A.

Section D. Method 4 – Dedicated Track Lighting Supplementary Overcurrent Protection Panel.

If using this method to determine track or busway lighting power, check the box to the left of “Method 4.”

A Certificate of Installation must also be submitted in order for the Track Lighting Supplementary Over current Protection Panel to be recognized for compliance with the Standards.

- D01 - Name or ID is the description of the track lighting that corresponds to the plans.
- D02 - Voltage of the Branch is the voltage of the branch described in D01.
- D03 - Sum of the Ampere Rating of all Devices is the sum of all of the current devices installed in the panel
- D04 – Sum of the Ampere Ratings of all of the Devices Times the Branch Circuit Voltage is the total watts installed, and is calculated by multiplying the Voltage in D02 times the sum in D03.