



# Decoding 2016 Forms

*Let's Talk About the NEW NRCC-LTI-E*



HELPING YOU PLAY YOUR CARDS RIGHT





Brought to you by...

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## California Statewide Codes & Standards



This program is funded by California utility customers under the auspices of the California Public Utilities Commission and in support of the California Energy Commission.



# Who Are We?

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Gina Rodda  
Gabel Energy  
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BUILDING ENERGY ANALYSIS +  
ENERGY CODE COMPLIANCE

## Host: Gina Rodda

Gina Rodda, our host for the Decoding Talk series, is a Certified Energy Analyst (CEA), and LEED Accredited Professional (AP).

She is involved in providing residential and non-residential energy calculations for a variety of building types throughout California; an instructor of full day trainings; and host of various webinars specific to Title 24 (Part 6) Building Energy Efficiency Standards.

Gina has been in the energy modeling field since 1991, starting the *ninth* California building energy code cycle of her career.



# Who Are We?

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Michael Scalzo  
NLCAA

[mscalzo@nlcaa.org](mailto:mscalzo@nlcaa.org)



National Lighting Contractors  
Association of America

## Co-Host: Michael Scalzo

Michael Scalzo has been involved with California's statewide implementation of the Title 24, Part 6 2013 and 2016 Nonresidential Standards.

Michael has been actively providing instruction and training courses for Title 24 2013 and 2016 lighting and electrical energy code compliance through California Electrical Training Inc. and NLCAA.

With his 25 years of field electrical experience, that has made him an expert in value engineering solutions, Michael is extensively involved in the lighting and electrical design and energy compliance documentation for his clients, in addition to being an Acceptance Test Technician.

Recently Michael has become the Executive Director of NLCAA, a ATTCP (a provider of Lighting Acceptance Testers).



## The *NEW* NRCC-LTI-E Form

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- ✦ Be aware of the efforts of the CEC to streamline and simplify the energy code documentation and enforcement process;
- ✦ Review the overall structure of the new form, and how this will apply to future nonresidential prescriptive form revisions;
- ✦ Gain familiarization to the form and its functionality through documenting lighting compliance for a *simple* new and altered project.



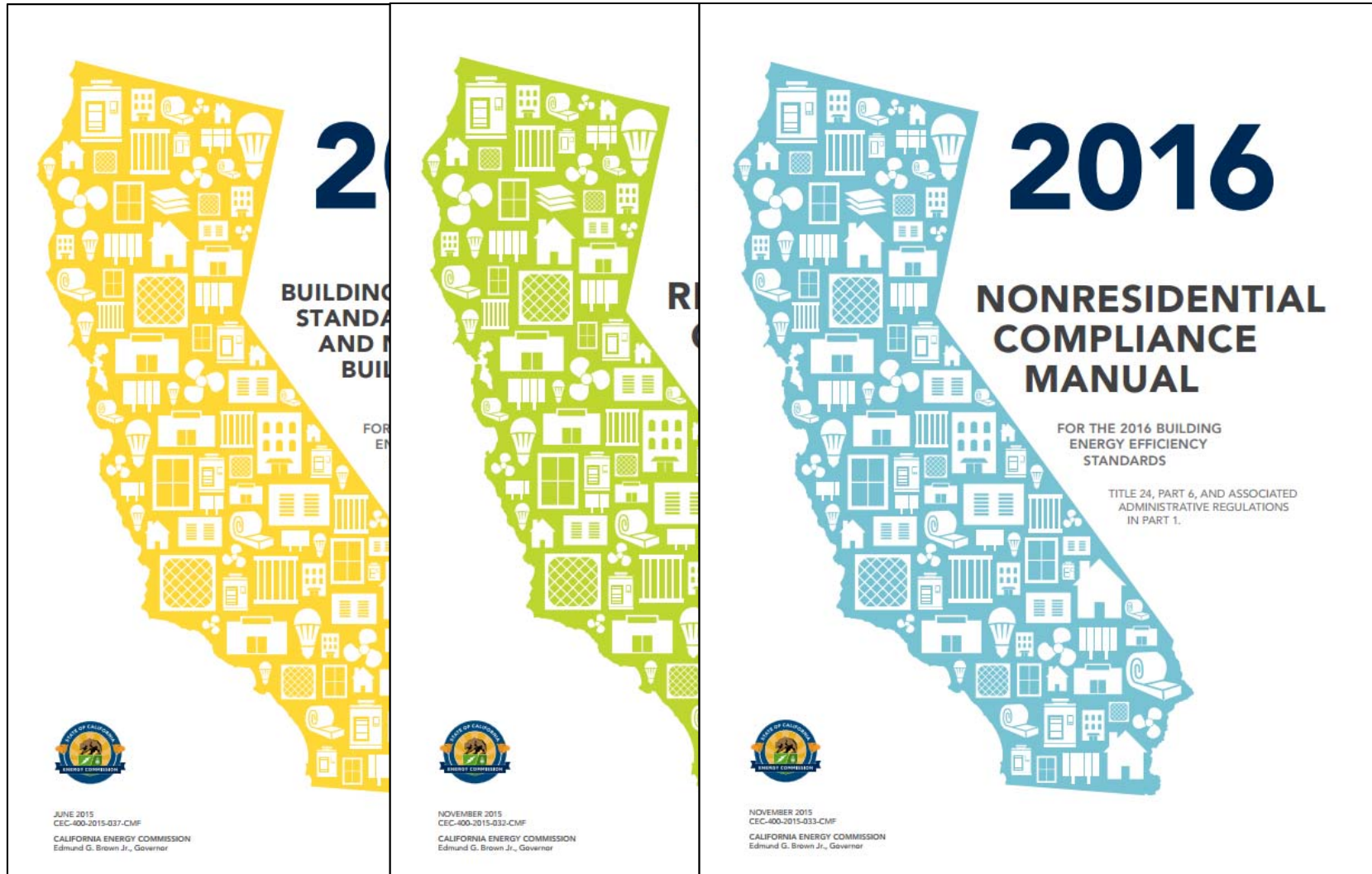
Why?



HELPING YOU PLAY YOUR CARDS RIGHT



# What? Title 24 Part 6: Energy Code



<http://www.energy.ca.gov/title24/2016standards/index.html>



# Why?



## WHY?!

### ✦ Simplification

#### ✦ Number of pages:

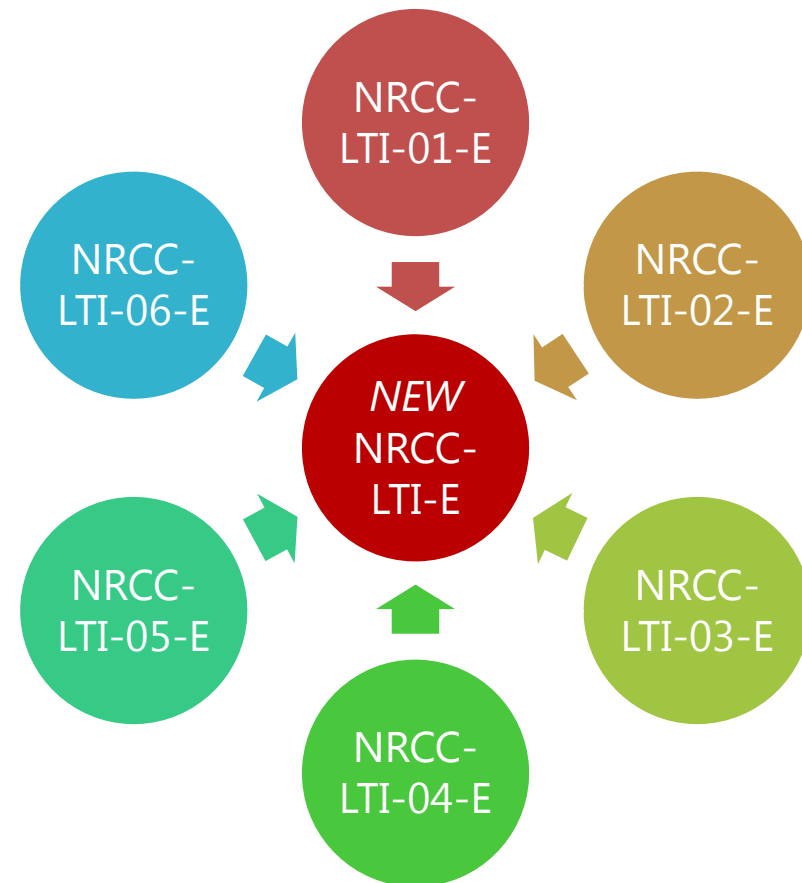
- Existing: 19 pages
- New: 8 pages

#### ✦ Form to use?

- Existing: (6) different forms
- New: REDUCED to *one*

#### ✦ Signature page

- Existing: 3 pages
- New: One signature page







# Why?

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## WHY?!

✦ Improve Compliance

- ✦ Hyperlinks *within the form* to CEC Title 24 Part 6 Standards
- ✦ Form *assesses compliance* based on provided inputs
- ✦ Built in functions within form to *guide users* towards compliance
- ✦ *Auto select* NRCI and NRCA forms based on form inputs



# What's Next?

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## Future Plans

- ✦ Proceed with updating all other nonresidential prescriptive forms to this new format:
  - ✦ Outdoor lighting (NRCC-LTO)
  - ✦ Sign lighting (NRCC-LTS)
  - ✦ Envelope (NRCC-ENV)
  - ✦ Mechanical (NRCC-MCH)
  - ✦ Solar Ready (NRCC-SRA)
  - ✦ Design Review (NRCC-CXR)
  - ✦ Electrical Distribution (NRCC-ELC)
  - ✦ Domestic Hot water (NRCC-PLB)
  - ✦ Covered Process (NRCC-PRC)



# How? With Energy Code Ace Team



*In order to improve compliance...*

- ✦ Analyze the compliance supply chain market actors' unique roles and needs
- ✦ Apply appropriate performance-based solutions that meet stakeholders' specific needs and preferences

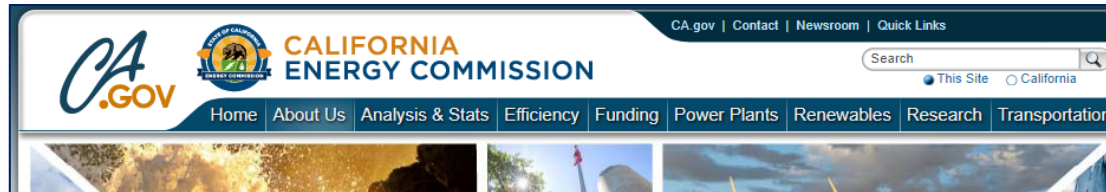


*User-Centered Design*

*Image: [www.ideo.org](http://www.ideo.org)*



# Where? CEC Website



Name	last modified Color dates added today	Size
00 Dynamic Forms	Sep 08, 2017	4 kb
00 Instructions for Digital Signatures.pdf	Mar 15, 2017	63.2 kb
2016-NRCC-CXR-01-E-CxDesignReviewKickoff.pdf	Feb 02, 2017	636.3 kb
2016-NRCC-CXR-02-E-CxConstructionDocuments-General.pdf	Feb 02, 2017	1.4 mb
2016-NRCC-CXR-03-E-CxConstructionDocuments-SimpleHvacSystems.pdf	Feb 02, 2017	635.5 kb

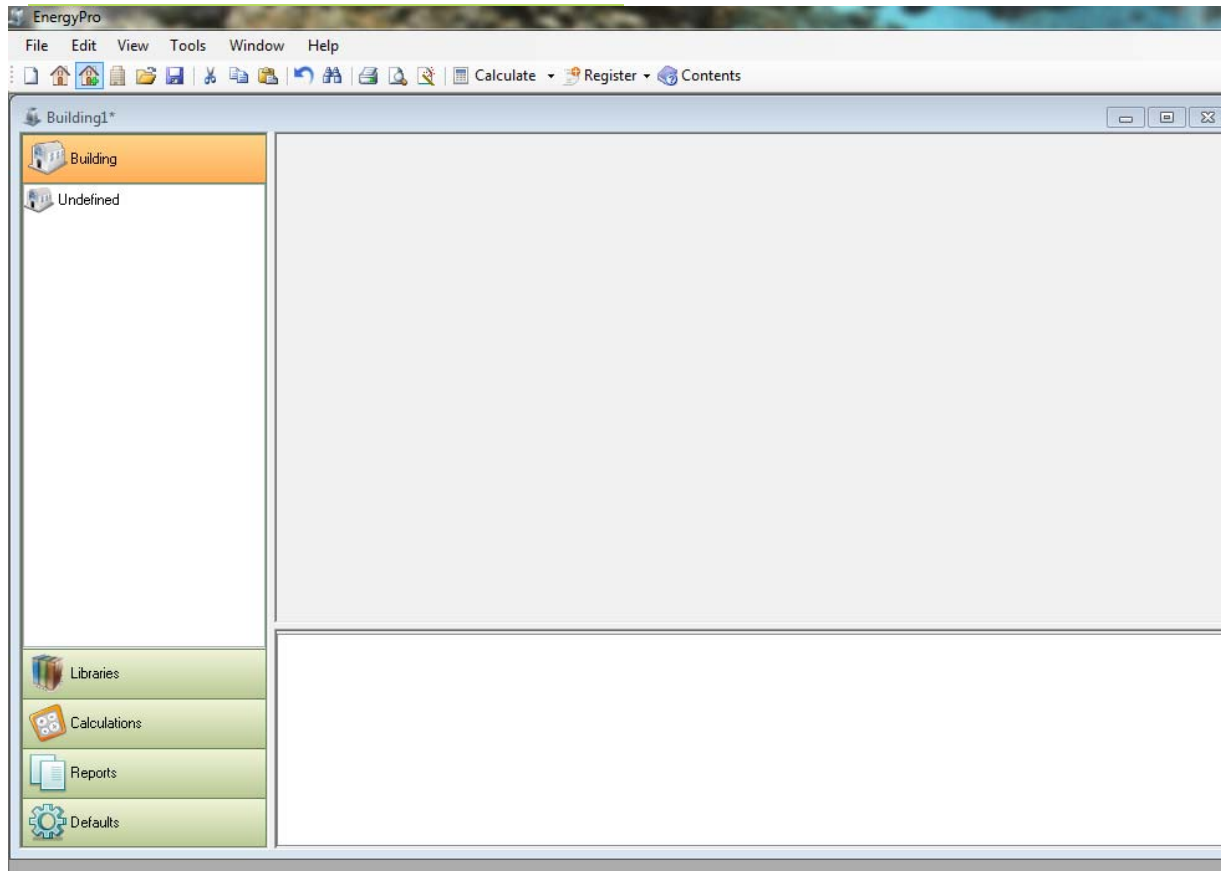
  

Name	last modified Color dates added today	Size
NRCC-LTI-E.pdf	Sep 08, 2017	1.8 mb

<http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCC/>



# Where? Energy Pro



- ✦ Energy Soft is working on incorporating the new NRCC-LTI-E
- ✦ Will support all future prescriptive forms also



## Getting Help: Moving Forward

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- ★ Decoding Talk: Troubleshooting Guide and recording available under “training” at [www.energycode.com](http://www.energycode.com)
- ★ How to get help?
  - ✧ CEC Hotline: 1-800-772-3300
- ★ Submit “bug” problems
  - ✧ CEC Hotline: [title24@energy.ca.gov](mailto:title24@energy.ca.gov)
- ★ Remember, get it **fresh** every time from the CEC website
- ★ You can use the old forms AND the new form through the end of this code cycle



# Handouts



**Decoding 2016 Forms™**  
Let's Talk about the New NRCC-LTI-E

### Troubleshooting Guide

Issue	Known Issues	Potential Solution(s)
<b>Indoor Fixture Schedule (Table F) has not opened</b>	Project Scope (Table B) auto expands appropriate tables based on scope of work	Fill out all the "input" cells on Project Scope (Table B) appropriate to project scope
<b>Indoor Fixture Schedule (Table F) when would I select column 7 "Exempt per 140.6(a)3"</b>	The fixture schedule was created to replicate a fixture schedule. Not all light fixtures need to show compliance to code	Confirm that the light you are indicating as "exempt" really is so that the AHJ and contractor are aware of how to treat ALL light fixtures for compliance
<b>Indoor Fixture Schedule (Table F) is not showing</b>		Make sure that column 7 "exempt" is not selected

✦ New NRCC-LTI-E form with Trouble Shooting Guide

✦ NRCC-LTI-E Blank Form

✦ Class Materials

✦ NRCC-LTI-E for new lighting example

✦ NRCC-LTI-E for lighting alteration example

STATE OF CALIFORNIA  
**Indoor Lighting**  
NRCC-LTI-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

Project Name: \_\_\_\_\_ Report Page: Page 1 of 5  
Project Address: \_\_\_\_\_ Date Prepared: \_\_\_\_\_

#### A. GENERAL INFORMATION

01 Project Location (city)	04 Total Conditioned Floor Area (ft <sup>2</sup> )
02 Climate Zone	05 Total Unconditioned Floor Area (ft <sup>2</sup> )
03 Occupancy Types Within Project (select all that apply): <input type="checkbox"/> Office <input type="checkbox"/> Retail <input type="checkbox"/> Warehouse <input type="checkbox"/> Hotel/Motel <input type="checkbox"/> School <input type="checkbox"/> Support Areas <input type="checkbox"/> Parking Garage <input type="checkbox"/> High-Rise Residential <input type="checkbox"/> Warehouse <input type="checkbox"/> Relocatable <input type="checkbox"/> Other (write in): _____	06 # of Stories (Habitable Above Grade)

#### B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces	Unconditioned Spaces		
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input type="checkbox"/> New Lighting System	Add Parking Garage-Complete Bldg Method		Remove Parking Garage	
<input type="checkbox"/> Altered Lighting System	Add Altered Lighting System		Remove Last Altered System	
Total Area of Work (ft <sup>2</sup> )				

#### C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					Actual Lighting Power per §140.6(a) (Watts)				Compliance Results		
	01	02	03	04	05	06	07		08		09	10
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Footnotes §140.6(c)2G (+)	Tailored §140.6(c)3 (+)			Total Allowed (Watts)	Total Designed (Watts)				
	(See Table I)	(See Table I)	(See Table K)	(See Table L)	≥	(See Table F)	(See Table J)	(See Table R)	≥	05 Must be > 09 §140.6		
Conditioned:					≥				≥			
Unconditioned:					≥				≥			
Controls Compliance (See Table H for Details)												
Rated Power Reduction Compliance (See Table S for Details) Not Applicable												

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> July 2017



Let's Talk



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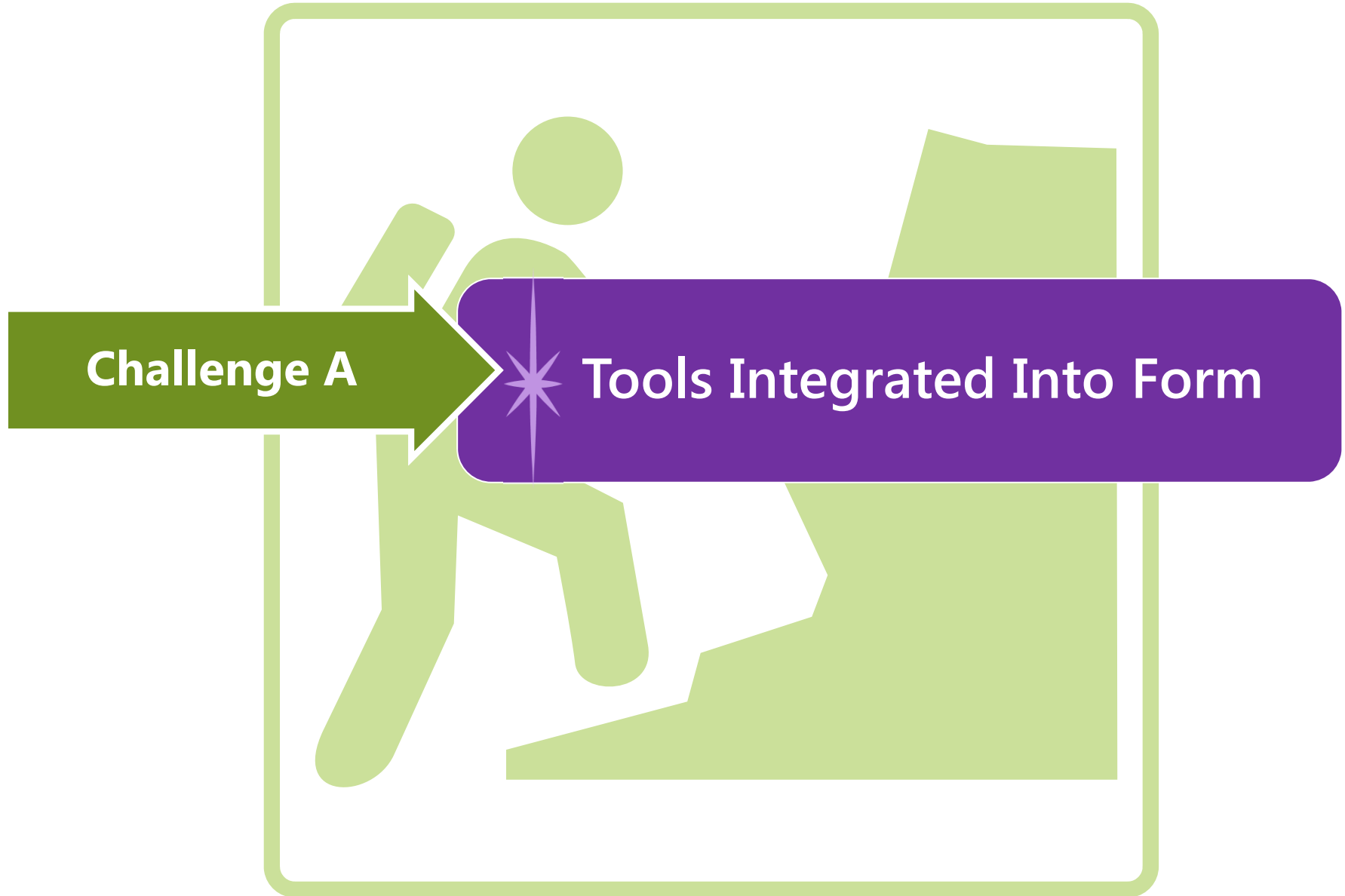






# Challenge A

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# How Compliance Was Achieved

**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 Spaces			
			Watts				Watts
01	Installed Lighting	NRCC-LTI-01-E, Table H, page 5	+ 1,534	01	Installed Lighting	NRCC-LTI-01-E, Table H, page 5	+ 87
02	Portable Only for Offices	NRCC-LTI-01-E, Table G, page 4	+	02	Portable Only for Offices	NRCC-LTI-01-E, Table G, page 4	+
03	Minus Lighting Control Credits	NRCC-LTI-02-E, page 2	= 0	03	Minus Lighting Control Credits	NRCC-LTI-02-E, page 2	= 0
04	Adjusted Installed Lighting Power (row 1 plus row 2 minus row 3)		= 1,534	04	Adjusted Installed Lighting Power (row 1 minus row 3)		= 87
Complies ONLY if Installed ≤ Allowed (Box 04 < Box 05)				Complies ONLY if Installed ≤ Allowed (Box 04 < Box 05)			
05	Allowed Lighting Power	Conditioned NRCC-LTI-03-E, page 1	1,550	05	Allowed Lighting Power	Unconditioned NRCC-LTI-03-E, page 1	96
Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2				Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2			

**B. PROJECT SCOPE**

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input checked="" type="checkbox"/> New Lighting System	Area Category + Tailored	1,095	Area Category	135
<input type="checkbox"/> Altered Lighting System				
<b>Total Area of Work (ft<sup>2</sup>)</b>	<b>1,095</b>		<b>135</b>	

**C. COMPLIANCE RESULTS**

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					Actual Lighting Power per §140.6(a) (Watts)			Compliance Results		
	01	02	03	04	05	06	07	08		09	10
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Footnotes §140.6(c)2G (+) (See Table K)	Tailored §140.6(c)3 (+) (See Table L)	Total Allowed (Watts)	Total Designed (Watts) (See Table E)	Adjustments				
							Portable Lighting §140.6(a) (-) (See Table I)	PAF Control Credits §140.6(a)2 (-) (See Table R)	Total Actual (Watts) *Includes Adjustments	05 Must be ≥ 09 §140.6	
<b>Conditioned:</b>		286.8		2,124.3	= 2,411.1	≥ 1,884			= 1,884	<b>COMPLIES</b>	
<b>Unconditioned:</b>		81			= 81	≥ 87			= 87	<b>DOES NOT COMPLY</b>	
Controls Compliance (See Table H for Details)									<b>COMPLIES with Exceptional Conditions</b>		
Rated Power Reduction Compliance (See Table S for Details)									<b>Not Applicable</b>		



# Built-In Guides to Compliance

A Separate 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

## Minimal guidance

### F. Indoor Lighting Schedule and Final Inspection Energy Checklist

- The actual indoor lighting power listed on the next 2 pages include all installed permanent and portable lighting systems.
- When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.
- 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 document (NRCC-LTI-05-E) when line-voltage track lighting is installed.

2016 Building Energy Efficiency Standards

Page 197

### SECTION 140.6 – PRESCRIPTIVE REQUIREMENTS FOR INDOOR LIGHTING

A building complies with this section if:

- i. The Calculation of Actual Indoor Lighting Power of all proposed building areas combined, calculated under Subsection (a) is no greater than the Calculation of Allowed Indoor Lighting Power, Specific Methodologies calculated under Subsection (c); and
- ii. The Calculation of Allowed Indoor Lighting Power, General Rules comply with Subsection (b); and
- iii. General lighting complies with the Automatic Daylighting Controls in Secondary Daylit Zone requirements in Subsection (d).

(a) **Calculation of Actual Indoor Lighting Power.** The actual indoor Lighting Power of all proposed building areas is the total watts of all planned permanent and portable lighting systems in all areas of the proposed building; subject to the applicable adjustments under Subdivisions 1 through 3 of this subsection and the requirements of Subdivision 4 of this subsection.

**EXCEPTION to Section 140.6(a):** Up to 0.3 watts per square foot of portable lighting for office areas shall not be required to be included in the calculation of actual indoor Lighting Power.

1. **Two interlocked lighting systems:** No more than two lighting systems may be used for an area, and if there are two they must be interlocked. Where there are two interlocked lighting systems, the watts of the lower wattage system may be excluded from the actual indoor Lighting Power if:

- A. An Installation Certificate detailing compliance with Section 140.6(a)1 is submitted in accordance with Section 10-103 and Section 130.4; and
- B. The area or areas served by the interlocking systems is an auditorium, a convention center, a conference room, a multipurpose room, or a theater; and
- C. The two lighting systems are interlocked with a Nonrenewable Double Throw Switch to prevent

Method per §140.6(c)3. Indicate below if any Tailored Method "special function areas" or additional allowances may apply, but lighting that qualifies for one of the additional "use it or lose it" allowances shall

Use it" Allowance (Watts)	01
<input type="checkbox"/> Ornamental & Special Effects	<input type="checkbox"/> Very Valuable Merchandise
Table P	Table Q
05	06

Table L is used to calculate Allowed Lighting Power (Watts) for conditioned versus unconditioned space for compliance with the Tailored method, and the results are automatically transferred to Table C Compliance Results. Table L only expands for user input when the Tailored method (including Area Category + Tailored), is selected in Table B Project Scope.

L. TAILORED METHOD  
 Table Instructions  
 "use it or lose it"  
 not qualify for  
 Conditioned  
 General Lighting  
 Power Allowance  
 Table L (b)  
 864.3  
 Calculated  
 02

Area Description	Primary Function Area per Table 140.6-D	Illuminance Value (LUX)	Room Configuration	Allowed Density (W/ft <sup>2</sup> )				
Sales	Retail Merchandise Sales	400	Rectangular	1.34	645	864.3	<input type="checkbox"/> PAF	
	Financial Transaction Area	Height (ft) <sup>1</sup>		Ratio (RCR)				
	Grocery Store Area	10	Rectangular	5				
	Hotel Function Area	Total General	Non-Rectangular					
	Hotel Lobby							
	Main Entry Lobby							
	Lounge Area							
	Malls and Atria							
	Religious Worship Area							
	Retail Merchandise Sales							
					Total Installed Lighting Power (Watts) CONDITIONED SPACES:		864.3	
					Reset	Add Row	Remove Last	

<sup>1</sup>Height is the vertical

<sup>1</sup>Centerline of the lighting fixture per Table 140.6-F.



# Communication

Office Portable Luminaire Schedule	Office Installed Portable Luminaire W/ft <sup>2</sup>						Office Location	Field Inspector		
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 (G02-G04)	square feet of this office	Watts per square foot (G04, G05)	if G06 > 0.3 (G06-G08)	(G05 x G07)	Identify Office area in which these portable luminaires are installed	Pass	Fail
Not Applicable									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
									<input type="checkbox"/>	<input type="checkbox"/>
Total installed portable luminaire watts that are greater than 0.3 W/ft <sup>2</sup> per office:								Enter sum total of all pages into NRCC-LTI-01-E; Page 1		

Depends on documentation author

Current Form

## D. EXCEPTIONAL CONDITIONS

*This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.*

Track Lighting has been included in this project, details are provided in Table G.

Table H. Indoor Lighting Controls Permit Applicant Notes:

Sales Floor: Switches in Stockroom

Office: Partial On Occupancy Sensor provided as required by code

Accent/Display lighting has been indicated in Tables K or L. These spaces must include dedicated luminaires controlled as general lighting per §130.1 and §140.6.

## E. ADDITIONAL REMARKS

*This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.*

Current limiter assumed to be 14 AMPS, to be verified when specific product installed by contractor



# Lighting Fixture Schedule

A Separate 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**

## H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location	Field Inspector <sup>1</sup>	
01	02	03	04	05	06	07	08	

A Separate 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**

## H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location	Field Inspector <sup>1</sup>	
01	02	03	04		05	06	08	
Name or Item Tag	Complete Luminaire Description (i.e., 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per Luminaire	How wattage was determined		Number Luminaires	Total Installed Watts in this area (H03 x H05)	Primary Function area in which these luminaires are installed	
			CEC Default from NA8	According to §130.0(c)			Pass	Fail
L3	1 Lamp 4 ft T8 Energy Saving Elec	29.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	87	Corridor/Restroom/Support	<input type="checkbox"/> <input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:		1,534	Enter sum total of all pages into NRCC-LTI-01-E; Page 2					

## F. INDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

### Designed Wattage: Conditioned Spaces

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
		Track	Portable						Pass	Fail
1	Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	<input type="checkbox"/>	<input type="checkbox"/>
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>1</sup>	20	<input type="checkbox"/>	360	<input type="checkbox"/>	<input type="checkbox"/>
3	4' (1) lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	Mfr. Spec <sup>1</sup>	6	<input type="checkbox"/>	174	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts CONDITIONED SPACES:</b>								<b>1,884</b>		
							Reset	Add Row	Remove Last	

### Designed Wattage: Unconditioned Spaces

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
		Track	Portable						Pass	Fail
3	4' (1) lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	Mfr. Spec <sup>1</sup>	3	<input type="checkbox"/>	87	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts UNCONDITIONED SPACES:</b>								<b>87</b>		
							Reset	Add Row	Remove Last	

<sup>1</sup>NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c). Wattage used must be the maximum rated for the luminaire, not the lamp.



# Lighting Controls

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:

- CONDITIONED SPACES     UNCONDITIONED SPACES

## B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

		Standards Complying With <sup>1</sup>		PAF Credit Calculation <sup>2</sup>			if Acceptance Test Required	Field Inspector			
				Watts of controlled lighting	PAF	Control Credit (K x L)					
<b>H. INDOOR LIGHTING CONTROLS (Not Including PAFs)</b>											
<b>Table Instructions:</b> Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.				<b>Building Level Controls</b>							
				01		02		03		Field Inspector	
				Mandatory Demand Response <a href="#">§130.1(e)</a>		Shut-off Controls <a href="#">§130.1(c)</a>				Pass	Fail
Not Required ≤ 10,000 SF				Whole Building: Automatic Time Switch		<input type="checkbox"/>	<input type="checkbox"/>				
<b>Area Level Controls</b>											
04	05	06	07	08	09	10	11	12			
Area Description	Complete Building or Area Category Primary Function Area	Area Controls <a href="#">§130.1(a)</a>	Multi-Level Controls <a href="#">§130.1(b)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>	Primary/Skylit Daylighting <a href="#">§130.1(d)</a>	Secondary Daylighting <a href="#">§140.6(d)</a>	Interlocked Systems <a href="#">§140.6(a)1</a>	Field Inspector			
								Pass	Fail		
Sales Floor	Retail Merch., Showroom	Annunciated *	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Office	Office (> 250 square feet)	Manual ON/OFF	Dimmer	Partial On *	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Stockroom/Electrical	Corridor, Restrm, Stair, Support	Auth. Personnel	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Toilet	Corridor, Restrm, Stair, Support	Annunciated *	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Uncon. Storage	Corridor, Restrm, Stair, Support	Exempt * Other *	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved. EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to <a href="#">§130.1(d)2</a>					13						
					Plan Sheet Showing Daylit Zones:						
					Lighting Plan L-1						
Sales Floor	Switch in Stockroom										
Office	Partial on occupancy sensors to be provided per code requirements										
				Reset	Add Row	Remove Last					



# Challenge B

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**Challenge B**



**Road Map to NRCC-LTI-01**



# Road Map

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRCC-LTI-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

Project Name: "New" Project Scenerio Report Page: Page 1 of 8  
 Project Address: Example project Date Prepared: 8/25/2017 rev 2

## Project Information

A. GENERAL INFORMATION					
01	Project Location (city)	Example	04 Total Conditioned Floor Area (ft <sup>2</sup> )	1,095	
02	Climate Zone		05 Total Unconditioned Floor Area (ft <sup>2</sup> )	135	
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1
<input type="checkbox"/> Office <input checked="" type="checkbox"/> Retail <input type="checkbox"/> Warehouse <input type="checkbox"/> Hotel/Motel <input type="checkbox"/> School <input type="checkbox"/> Support Areas					
<input type="checkbox"/> Parking Garage <input type="checkbox"/> High-Rise Residential <input type="checkbox"/> Relocatable <input type="checkbox"/> Other (write in):					

## Indoor Lighting Scope

**B. PROJECT SCOPE**

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	02	03	04	05
My project consists of (check all that apply):	Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input checked="" type="checkbox"/> New Lighting System	Area Category 1 (ailed)	1,095	Area Category 1	135
	Add Parking Garage-Complete Bldg Method		Remove Parking Garage	
<input type="checkbox"/> Altered Lighting System				
	Add Altered Lighting System		Remove Last Altered System	
<b>Total Area of Work (ft<sup>2</sup>)</b>		<b>1,095</b>		<b>135</b>

## Prescriptive Compliance

**C. COMPLIANCE RESULTS**

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					Actual Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04	05	06	07	08	09	
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Footcandles §140.6(c)3 (+) (See Table K)	Footcandles §140.6(c)4 (+) (See Table L)	Total Allowed (Watts)	Total Designed (Watts) (See Table F)	Adjustments: Portable Lighting §140.6(a) (-) (See Table J)	AF Control Coeffs §140.6(a)2 (-) (See Table R)	Total actual (Watts) Includes Adjustments	
Conditioned:		286.8		2,124.3	= 2,411.1	≥ 1,884			= 1,884	COMPLIES
Unconditioned:					=	≥ 87			= 87	
Controls Compliance (See Table H for Details)										COMPLIES with Exceptional Conditions
Rated Power Reduction Compliance (See Table S for Details)										Not Applicable





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**D. EXCEPTIONAL CONDITIONS**

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

# Compliance Specifics

**E. ADDITIONAL REMARKS**

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Current limiter assumed to be 14 AMPS, to be verified when specific product installed by contractor

**F. INDOOR LIGHTING FIXTURE SCHEDULE**

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
		Track	Portable						Pass	Fail
1	Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	<input type="checkbox"/>	<input type="checkbox"/>
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>1</sup>	20	<input type="checkbox"/>	360	<input type="checkbox"/>	<input type="checkbox"/>
3	4' (1) lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	Mfr. Spec <sup>1</sup>	6	<input type="checkbox"/>	174	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts CONDITIONED SPACES:</b>								1,884		

# Lighting Fixture Schedule

Designed Wattage: Unconditioned Spaces

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
		Track	Portable						Pass	Fail
3	4' (1) lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	Mfr. Spec <sup>1</sup>	3	<input type="checkbox"/>	87	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	0	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	0	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts UNCONDITIONED SPACES:</b>								87		

NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.



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## Indoor Lighting

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### CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: "New" Project Scenerio

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### G. TRACK LIGHTING

Table Instructions: Complete this table for track lighting fixtures indicated on Table F. Luminaire classification and power should be per §130.0(c)7 & 8.

01	02	03	04				05
Name or Item Tag	Complete Track Description	Total Amps of the Track and Busway <sup>a</sup>	Calculation Method per §130.0(c)7B				Track Wattage
1	Juno Track	4	<input type="checkbox"/> VA Rating of Branch Circuit	<input type="checkbox"/> Installed Luminaire vs Default W/ft	<input type="checkbox"/> Current Limiter	<input type="checkbox"/> Overcurrent Protection Panel <sup>b</sup>	
			VA of current limiter	OR	Linear ft of track	x	Default W/LF = Total Watts
			1,350		80		12.5 = 1,000
							1,350

# Track Lighting Schedule

1. Current limiters must be certified under Title 20 and a Certificate of Installation NRCI-LTI-03 must be completed when this method is used for compliance.
2. This method is only applicable to line-voltage track lighting. Overcurrent protection panels must be certified under Title 20 and a Certificate of Installation NRCI-LTI-03 must be completed when this method is used for compliance.
3. If the total Amps of the track and busway is greater than 20 Amps, only calculation method i may be used per §130.0(c)7A. Total Amps may be determined by manufacturer's literature or estimated from total input wattage of track system divided by volts.

### H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

Table Instructions: Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a \* is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

Building Level Controls											
Area Level Controls											
04	05	06	07	08	09	10	11	12			
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector			
								Pass	Fail		
Sales Floor	Retail Merch., Showroom	Annunciated *	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Office	Office (> 250 square feet)	Manual ON/OFF	Dimmer	Partial On *	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Stockroom/Electrical	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Toilet	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		


# Lighting Controls

Table Continued



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04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls <a href="#">§130.1(a)</a>	Multi-Level Controls <a href="#">§130.1(b)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>	Primary/Skylit Daylighting <a href="#">§130.1(d)</a>	Secondary Daylighting <a href="#">§140.6(d)</a>	Interlocked Systems <a href="#">§140.6(a)1</a>	Field Inspector	
								Pass	Fail
Uncon. Storage	Corridor, Restrm, Stair, Support	<input type="checkbox"/> Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>*NOTES: Controls with a * require a note in the report below explaining how compliance is achieved.</p> <p>EX: Conference 1: Primary/Skylight Daylighting; exempt because less than 100 watts of general lighting; EXCEPTION 1 to <a href="#">§130.1(d)2</a></p> <p style="text-align: right;">Plan Sheet showing Daylit Zones: Lighting Plan L-1</p>									
Sales Floor	Switch in Stockroom								
Office	Partial on occupancy sensors to be provided per code requirements								
				Reset	Add Row	Remove Last			

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per [§140.6\(b\)](#). Indicate if additional lighting power allowances per [§140.6\(c\)](#) or adjustments per [§140.6\(a\)](#) are being used.

Conditioned Spaces

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Office	Office (> 250 square feet)	0.75	112	84	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical/Toilet	Corridor, Restrm, Stair, Support	0.6	338	202.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			TOTAL:	286.8	See Tables J, K, R for detail		
				Reset	Add Row	Remove Last	

Unconditioned Spaces

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Uncon. Storage	Corridor, Restrm, Stair, Support	0.6	135	81	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			TOTAL:	81	See Tables J, K, R for detail		
				Reset	Add Row	Remove Last	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards>

July 2017





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**J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES**   
*This Section Does Not Apply*

**K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES**   
*This Section Does Not Apply*

**L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE**   
 Table Instructions: Please complete this table for areas using the Tailored Method per §140.6(c)3. Indicate below if any Tailored Method "special function areas" or additional "use it or lose it" allowances are needed. More than one additional allowance may apply, but lighting that qualifies for one of the additional "use it or lose it" allowances shall not qualify for another additional allowance.

Conditioned Spaces							
General Lighting Power Allowance (Watts)	Special Function Areas	Wall Display Lighting	Floor Display Task Lighting	Ornamental & Specialty Effects	Very Valuable Merchandise	Total Allowed Watts using Tailored Method	
Table L (below)	Table M	Table N	Table O	Table P	Table Q	01	
864.3		1,260				2,124.3	
Calculated General Lighting Power Allowance							
02	03	04	05	06	07	08	09
Area Description	Primary Function Area per Table 140.6-D	Commerce Value (LxK)	Room Configuration	Allowed Density (W/ft²)	Area (ft²)	Extra Allowance (Watts)	Power Adjustment (See Table R)
Sales	Retail Merchandise Sales	400	Rectangular	1.34	645	864.3	<input type="checkbox"/> PAF
	Room Length (ft)	Room Width (ft)	Height (ft) <sup>1</sup>	Room Cavity Ratio (RCR)			
	43	15	10	4.5			
			0			0	<input type="checkbox"/> PAF
			0			0	<input type="checkbox"/> PAF
<b>Total General Power Allowance (Watts) CONDITIONED SPACES:</b>						<b>864.3</b>	
		<b>Reset</b>		<b>Add Row</b>		<b>Remove Last</b>	


<sup>1</sup>Height is the vertical distance from the work plane to the centerline of the lighting fixture per Table 140.6-F.

**M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS**   
*This Section Does Not Apply*



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CERTIFICATE OF COMPLIANCE NRCC-LTI-E

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**N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY** ?

Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	11
Area Description	Wall Display Length (lf)	Wall Display Density (W/lf)	Extra Allowance (Watts)	Luminaire Name or Item #	Mounting Height (ft)	Mounting Height Factor	Watts per Luminaire	# of Luminaires	Total Design Watts	Additional Allowance (Watts)
Sales	90	14	1,260	1	< 12 feet	1	1,920	1	1,920	
Total Design Watts for this Area:									1,920	1,260
Total Additional Allowance (Watts) CONDITIONED SPACES:										1,260
Reset									Add Row	Remove Last

**O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING** ?  
*This Section Does Not Apply*

**P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS** ?  
*This Section Does Not Apply*

**Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE** ?  
*This Section Does Not Apply*

**R. POWER ADJUSTMENT LIGHTING CONTROL REQUIREMENTS** ?  
*This Section Does Not Apply*

**S. RATED POWER REDUCTION COMPLIANCE BY SPACE** ?  
*This Section Does Not Apply*

Tailored Lighting Power Allowance cont.


Non Applicable Information Streamlined

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> July 2017



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CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: "New" Project Scenario Report Page: Page 7 of 8

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**T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION** ?

*Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at <http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCC>*

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-02-E - Must be submitted for lighting control systems or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-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.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a computer center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

**U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE** ?

*Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>*

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> July 2017

In-For-Field Forms  
(Auto Populated)



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Project Address: Example project	Date Prepared:	8/25/2017 rev 2	

### DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Gina Rodda	Documentation Author Signature:	
Company:	Gabel Energy	Signature Date:	8/25/17
Address:	1234 First St	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	Castro Valley, CA 94546	Phone:	510-000-0000

### RESPONSIBLE PERSON'S DECLARATION 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 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:	Michael Scalzo	Responsible Designer Signature:	
Company :	Scalzo Electric	Date Signed:	8/25/17
Address:	1234 Second St.	License:	C654531
City/State/Zip:	LA, CA 95444	Phone:	510-000-0000

Signatures  
Only 1 page!



# Challenge C

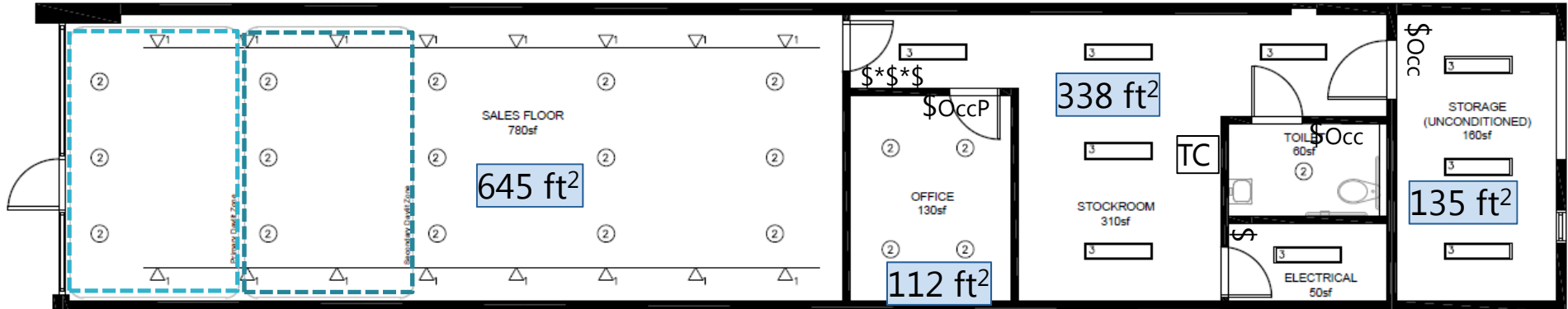
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# "New" Example



\$\* on/off/dimmer switch in Stockroom for Sales Area  
 \$ on/off/dimmer switch in room

\$OccP on/off/dimmer and Partial On Occupancy Sensor  
 \$Occ on/off/dimmer and Occupancy Sensor  
 TC Timeclock

## LIGHT SCHEDULE

	DESCRIPTION	QUANTITY	WATTS PER FIXTURE
∇¹	JUNO TRACK LIGHTING W/ 10w LED SERIES HEAD PROVIDE CURRENT LIMITER FOR MAX 10 WATTS PER LINEAR FOOT	2 TRACKS AT 40' EACH 16 HEADS	400 WATTS Current Limiter VA=1350 watts
⊙	HI LITE MGF – WAREHOUSE SHADE – H-15117 PENDANT	20 FIXTURES	18 WATTS
⊠	4' (1) LAMP LITHONIA LOW PROFILE LB WITH (1) T8 BULBS EACH	9 FIXTURES	29 WATTS



# "New" Example

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## A. GENERAL INFORMATION

01	Project Location (city)	Example	04	Total Conditioned Floor Area (ft <sup>2</sup> )	1,095
02	Climate Zone	2	05	Total Unconditioned Floor Area (ft <sup>2</sup> )	135
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	
<input type="checkbox"/> Office <input checked="" type="checkbox"/> Retail <input type="checkbox"/> Warehouse <input type="checkbox"/> Hotel/Motel <input type="checkbox"/> School <input type="checkbox"/> Support Areas		<input type="checkbox"/> Parking Garage <input type="checkbox"/> High-Rise Residential <input type="checkbox"/> Relocatable <input type="checkbox"/> Other (write in):			

## B. PROJECT SCOPE

**Table Instructions:** Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. **WARNING:** Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
	01	02	03	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input checked="" type="checkbox"/> New Lighting System	Area Category + Tailored	1,095	Area Category	135
	Add Parking Garage-Complete Bldg Method		Remove Parking Garage	
<input type="checkbox"/> Altered Lighting System				
	Add Altered Lighting System		Remove Last Altered System	
<b>Total Area of Work (ft<sup>2</sup>)</b>	<b>1,095</b>		<b>135</b>	

**B. PROJECT SCOPE**

**C. COMPLIANCE RESULTS**

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.5(b) (Watts)				05	Actual Lighting Power per §140.6(a) (Watts)			09	Compliance Results
	01	02	03	04		06	07	08		
Conditioned:	286.8	81	2,124.3	2,411.1	≥	1,884	≥	1,884	05 Must be ≥ 09	COMPLIES
Unconditioned:		81		81	≥	87	≥	87		DOES NOT COMPLY

# Scope of Work

Table A/B



# "New" Example

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C. COMPLIANCE RESULTS											
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.											
Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					Actual Lighting Power per §140.6(a) (Watts)				Compliance Results	
	01	02	03	04	05	06	07		08	09	10
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Footnotes §140.6(c)2G (+) (See Table K)	Tailored §140.6(c)3 (+) (See Table L)			Total Allowed (Watts)	Total Designed (Watts) (See Table F)			
					Portable Lighting §140.6(a) (-) (See Table J)	PAF Control Credits §140.6(a)2 (-) (See Table R)					
Conditioned:		286.8		2,124.3	= 2,411.1	≥ 1,884			= 1,884	COMPLIES	
Unconditioned:		81			= 81	≥ 87			= 87	DOES NOT COMPLY	
Controls Compliance (See Table H for Details)									COMPLIES with Exceptional Conditions		
Rated Power Reduction Compliance (See Table S for Details)									Not Applicable		

STATE OF CALIFORNIA  
Indoor Lighting  
NRCC-LT-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION  
NRCC-LT-E

CERTIFICATE OF COMPLIANCE  
This document is used to demonstrate compliance with requirements in §110.5, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.  
Project Name: "New" Project Scenario Report Page: Page 1 of 8  
Project Address: Example Project Date Prepared: 8/30/2017 Ver 4

**A. GENERAL INFORMATION**

01 Project Location (city): Example  
02 Climate Zone: 2  
03 Occupancy Type:  Office  Residential  Warehouse  Hotel/Motel  School  Support Areas  
 Parking Garage  House Residential  Relocatable  Other (write in):

**B. PROJECT SCOPE**

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. **WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new application or use "Save As".**

Scope of Work  
01 My Project Consists of (Select all that apply):  
 New Lighting System  
 Altered Lighting System

02 Calculation Method: Area Category + Tailored  
03 Area (ft²): 1,095  
04 Calculation Method: Area Category  
05 Area (ft²): 135

Total Area of Work (ft²): 1,095

**C. COMPLIANCE RESULTS**

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					Actual Lighting Power per §140.6(a) (Watts)				Compliance Results	
	01	02	03	04	05	06	07		08	09	10
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Footnotes §140.6(c)2G (+) (See Table K)	Tailored §140.6(c)3 (+) (See Table L)			Total Allowed (Watts)	Total Designed (Watts) (See Table F)			
					Portable Lighting §140.6(a) (-) (See Table J)	PAF Control Credits §140.6(a)2 (-) (See Table R)					
Conditioned:		286.8		2,124.3	= 2,411.1	≥ 1,884			= 1,884	COMPLIES	
Unconditioned:		81			= 81	≥ 87			= 87	DOES NOT COMPLY	
Controls Compliance (See Table H for Details)									COMPLIES with Exceptional Conditions		
Rated Power Reduction Compliance (See Table S for Details)									Not Applicable		

# Compliance

## Table C



# "New" Example

# Page 2 of 8

## D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Track Lighting has been included in this project, details are provided in Table G.  
 Table H. Indoor Lighting Controls Permit Applicant Notes:  
 Sales Floor: Switches in Stockroom  
 Office: Partial On Occupancy Sensor provided as required by code  
 Accent/Display lighting has been indicated in Tables K or L. These spaces must include dedicated luminaires controlled as general lighting per §130.1 and §140.6.

## E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Current limiter assumed to be 14 AMPS, to be verified when specific product installed by contractor

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRECC-LTL-E (Version 7/27)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Project Name: "New" Example  
 Project Address: Example  
 Report Page: Page 2 of 8  
 Date Prepared: 8/30/2017 Ver 4

**D. EXCEPTIONAL CONDITIONS**  
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.  
 Track Lighting has been included in this project, details are provided in Table G.  
 Table H. Indoor Lighting Controls Permit Applicant Notes:  
 Sales Floor: Switches in Stockroom  
 Office: Partial On Occupancy Sensor provided as required by code  
 Accent/Display lighting has been indicated in Tables K or L. These spaces must include dedicated luminaires controlled as general lighting per §130.1 and §140.6.

**E. ADDITIONAL REMARKS**  
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.  
 Current limiter assumed to be 14 AMPS, to be verified when specific product installed by contractor

**F. INDOOR LIGHTING FIXTURE SCHEDULE**  
 Table Instructions: Include all permanent lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces		Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)(3)	Design Watts	Field Inspector	
01	02	Track	Portable	04	05	06	07	08	Pass	Fail
1	Complete Luminaire Description Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	<input type="checkbox"/>	<input type="checkbox"/>
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>2</sup>	20	<input type="checkbox"/>	360	<input type="checkbox"/>	<input type="checkbox"/>
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NAB Default	6	<input type="checkbox"/>	174	<input type="checkbox"/>	<input type="checkbox"/>
Total Designed Watts CONDITIONED SPACES:								1,884		

Designed Wattage: Unconditioned Spaces		Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)(3)	Design Watts	Field Inspector	
01	02	Track	Portable	04	05	06	07	08	Pass	Fail
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NAB Default	3	<input type="checkbox"/>	87	<input type="checkbox"/>	<input type="checkbox"/>
Total Designed Watts UNCONDITIONED SPACES:								87		

NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c). Wattage used must be the maximum rated for the luminaire, not the lamp.

# Communication

Table D/E 36



# "New" Example

# Page 2 of 8

F. INDOOR LIGHTING FIXTURE SCHEDULE <span style="float: right;">?</span>										
Table Instructions: Include all permanent designed lighting and all portable lighting in offices.										
Designed Wattage: Conditioned Spaces										
01 Name or Item Tag	02 Complete Luminaire Description	03 Specialized Luminaire Types		04 Watts per luminaire <sup>1</sup>	05 How Wattage is determined	06 Total number luminaires	07 Exempt per §140.6(a)3	08 Design Watts	09 Field Inspector	
		Track	Portable						Pass	Fail
1	Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	<input type="checkbox"/>	<input type="checkbox"/>
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>1</sup>	20	<input type="checkbox"/>	360	<input type="checkbox"/>	<input type="checkbox"/>
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NA8 Default	6	<input type="checkbox"/>	174	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts CONDITIONED SPACES:</b>								<b>1,884</b>		
							Reset	Add Row	Remove Last	
Designed Wattage: Unconditioned Spaces										
01 Name or Item Tag	02 Complete Luminaire Description	03 Specialized Luminaire Types		04 Watts per luminaire <sup>1</sup>	05 How Wattage is determined	06 Total number luminaires	07 Exempt per §140.6(a)3	08 Design Watts	09 Field Inspector	
		Track	Portable						Pass	Fail
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NA8 Default	3	<input type="checkbox"/>	87	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts UNCONDITIONED SPACES:</b>								<b>87</b>		
							Reset	Add Row	Remove Last	

**\*NOTES:** Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.

Accent/Display lighting has been included in Tables K or L. These spaces must include dedicated luminaires controlled as general lighting per §130.1 and §140.6.

**E. ADDITIONAL REMARKS**

This table includes remarks that are not applicable to the Authority Having Jurisdiction.

Current limiter assumptions are verified when specific product installed by contractor.

**F. INDOOR LIGHTING FIXTURE SCHEDULE**

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces

01 Name or Item Tag	02 Complete Luminaire Description	03 Specialized Luminaire Types		04 Watts per luminaire <sup>1</sup>	05 How Wattage is determined	06 Total number luminaires	07 Exempt per §140.6(a)3	08 Design Watts	09 Field Inspector	
		Track	Portable						Pass	Fail
1	Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	<input type="checkbox"/>	<input type="checkbox"/>
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>1</sup>	20	<input type="checkbox"/>	360	<input type="checkbox"/>	<input type="checkbox"/>
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NA8 Default	6	<input type="checkbox"/>	174	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts CONDITIONED SPACES:</b>								<b>1,884</b>		

Designed Wattage: Unconditioned Spaces

01 Name or Item Tag	02 Complete Luminaire Description	03 Specialized Luminaire Types		04 Watts per luminaire <sup>1</sup>	05 How Wattage is determined	06 Total number luminaires	07 Exempt per §140.6(a)3	08 Design Watts	09 Field Inspector	
		Track	Portable						Pass	Fail
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NA8 Default	3	<input type="checkbox"/>	87	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts UNCONDITIONED SPACES:</b>								<b>87</b>		

**\*NOTES:** Authority Having Jurisdiction may ask for luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.

# Fixture Schedule



# "New" Example

# Page 3 of 8

## G. TRACK LIGHTING

Table Instructions: Complete this table for track lighting fixtures indicated on Table F. Luminaire classification and power should be per §130.0(c)7 & 8.

01	02	03	04				05				
Name or Item Tag	Complete Track Description	Total Amps of the Track and Busway <sup>a</sup>	Calculation Method per §130.0(c)7B				Track Wattage				
1	Juno Track	14	<input type="checkbox"/> i VA Rating of Branch Circuit	<input type="checkbox"/> ii Installed Luminaires vs Default 45 W/ft	<input checked="" type="checkbox"/> iii Current Limiter <sup>1</sup>	<input type="checkbox"/> iv Overcurrent Protection Panel <sup>2</sup>					
			VA of current limiter		OR	Linear ft of track	x	Default W/LF	=	Total Watts	
			1,350			80		12.5		1,000	1,350

1. Current limiters must be certified under Title 20 and a Certificate of Installation NRCI-LTI-03 must be completed when this method is used for compliance.
2. This method is only applicable to line-voltage track lighting. Overcurrent protection panels must be certified under Title 20 and a Certificate of Installation NRCI-LTI-03 must be completed when this method is used for compliance.
3. If the total Amps of the track and busway is greater than 20 Amps, only calculation method i may be used per §130.0(c)7A. Total Amps may be determined by manufacturer's literature or estimated from total input wattage of track system divided by Volts.

Project Name: New Project Scenario Report Pages: Page 2 of 8  
 Project Address: Example Project Date Prepared: 8/30/2017 Ver 4

**D. EXCEPTIONAL CONDITIONS**  
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.  
 Track Lighting has been included in this project. Details are provided in Table G.  
 Table H, Indoor Lighting Controls Permit Application Notes:  
 Sales Floor: Switches in Stockroom  
 Offices: Partial On Occupancy Sensor required by code  
 Accent/Display lighting has been included in Tables K or L. These spaces must include dedicated luminaires controlled as general lighting per §130.1 and §140.6.

**E. ADDITIONAL REMARKS**  
 This table includes remarks that are not applicable to the Authority Having Jurisdiction.  
 Current limiter assumption is verified when specific product installed by contractor

**F. INDOOR LIGHTING FIXTURE SCHEDULE**  
 Table Instructions: include all permanent and portable lighting in offices.

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types	Track	Portable	Watts per luminaire <sup>a</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector
1	Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	Pass
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>c</sup>	20	<input type="checkbox"/>	360	Pass
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29	NAB Default	6	<input type="checkbox"/>	174	Pass
Total Designed Watts CONDITIONED SPACES:									1,884	
Designed Wattage: UNCONDITIONED SPACES:										
01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types	Track	Portable	Watts per luminaire <sup>a</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29	NAB Default	3	<input type="checkbox"/>	87	Pass
Total Designed Watts UNCONDITIONED SPACES:									87	

NOTES: Authority Having Jurisdiction must verify luminaire cut sheets to confirm wattage used for compliance per §130.0(c)7. Wattage used must be the maximum rated for the luminaire, not the lamp.

# Fixture Schedule: Track Lighting

Table G 38



# "New" Example

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)									
<b>Table Instructions:</b> Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.					Building Level Controls				
					01		02		03
					Mandatory Demand Response §130.1(e)		Shut-off Controls §130.1(c)		Field Inspector
Not Required ≤ 10,000 SF		Whole Building: Automatic Time Switch		Pass	Fail				
Area Level Controls									
04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector	
								Pass	Fail
Sales Floor	Retail Merch., Showroom	Annunciated *	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office	Office (> 250 square feet)	Manual ON/OFF	Dimmer	Partial On *	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toilet	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncond. Storage	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	See Bldg Level	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.							13		
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(d)2							Plan Sheet Showing Daylit Zones:		
Sales Floor							L1		
Office									
Switches in Stockroom									
Partial On Occupancy Sensor provided as required by code									
					Reset	Add Row	Remove Last		

STATE OF CALIFORNIA  
INDOOR LIGHTING CERTIFICATION  
Project Name: [Blank]  
Table: [Blank]  
Item: [Blank]

1	Juno Track	VA Rating of Branch Circuit	Installed Luminaire vs Default as W/R	III Current Limiter*	IV Overcurrent Protection Panel*	
		VA of current limiter	Linear ft of track	x	Default W/LF	= Total Watts
		1,350	80	x	12.5	= 1,350

1. Current limiters must be certified under Title 20 and a Certificate of Installation NRCI-LT-03 must be completed when this method is used for compliance.  
 2. This method is only applicable to line-voltage track lighting. Overcurrent protection panels must be certified under Title 20 and a Certificate of Installation NRCI-LT-03 must be completed when this method is used for compliance.  
 3. If the total Amps of the track and busway is less than 20 Amps, only calculation method I may be used per §130.06(c)7A. Total Amps may be determined by manufacturer's literature or estimated from total input watts of track system divided by Volts.

**H. INDOOR LIGHTING CONTROLS (Not Including PAFs)**

**Table Instructions:**  
Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a \* is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)									
<b>Table Instructions:</b> Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.					Building Level Controls				
					01		02		03
					Mandatory Demand Response §130.1(e)		Shut-off Controls §130.1(c)		Field Inspector
Not Required ≤ 10,000 SF		Whole Building: Automatic Time Switch		Pass	Fail				
Area Level Controls									
04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector	
								Pass	Fail
Sales Floor	Retail Merch., Showroom	Annunciated *	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office	Office (> 250 square feet)	Manual ON/OFF	Dimmer	Partial On *	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Auto Timeswit	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toilet	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table Continued

CONTROLS.  
Building and Area  
Table H



# "New" Example

# Page 4 of 8

## I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

### Conditioned Spaces

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Office	Office (> 250 square feet)	0.75	112	84	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical	Corridor, Restrm, Stair, Support	0.6	338	202.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL:</b>				<b>450</b>	<b>286.8</b>	See Tables J, K, R for detail	
					Reset	Add Row	Remove Last

### Unconditioned Spaces

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Uncond. Storage	Corridor, Restrm, Stair, Support	0.6	135	81	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL:</b>				<b>135</b>	<b>81</b>	See Tables J, K, R for detail	
					Reset	Add Row	Remove Last

Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylight Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)(1)	Field Inspector	
		Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A		Pass	Fail
Toilet	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncond. Storage	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	See Bldg Level	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*NOTES: Controls with a \* require a sensor in the space below explaining how compliance is achieved.  
 EX: Conference 1: Primary Daylighting. Exempt because less than 120 watts of general lighting.  
 EXCEPTION 1 to §130.1(d): See Bldg Level

Plan Sheet Showing Daylit Zones:  
 L1

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces							
01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Office	Office (> 250 square feet)	0.75	112	84	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical	Corridor, Restrm, Stair, Support	0.6	338	202.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL:</b>				<b>450</b>	<b>286.8</b>	See Tables J, K, R for detail	
Unconditioned Spaces							
01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Uncond. Storage	Corridor, Restrm, Stair, Support	0.6	135	81	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL:</b>				<b>135</b>	<b>81</b>	See Tables J, K, R for detail	

# Power Allowance

Table I





## L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

Table Instructions: Please complete this table for areas using the Tailored Method per §140.6(c)3. Indicate below if any Tailored Method "special function areas" or additional "use it or lose it" allowances are needed. More than one additional allowance may apply, but lighting that qualifies for one of the additional "use it or lose it" allowances shall not qualify for another additional allowance.

### Conditioned Spaces

General Lighting	<input type="checkbox"/> Special	Additional "Use it or lose it" Allowance (Watts)		01
		Floor Display	Ornamental	

## N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

### Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	11	
Area Description	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS						Additional Allowance (Watts)	
	Wall Display Length (lf)	Wall Display Density (W/lf)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Mounting Height (ft)	Mounting Height Factor	Watts per Luminaire	# of Luminaires	Total Design Watts		
Retail	90	14	1,260	1	< 12 feet	1	1,350	1	1,350		
Total Design Watts for this Area:									1,350	1,260	
									Add Luminaire	Remove Last	
Total Additional Allowance (Watts) CONDITIONED SPACES:										1,260	
									Reset	Add Row	Remove Last

\*Height is the vertical distance from the work plane to the centerline of the lighting fixture per Table 140.6-F.

# Power

# Allowance:

# Tailored

Table L

"Use it or lose it" allowances shall not qualify for another additional allowance.

Conditioned Spaces

General Lighting Power Allowance	<input type="checkbox"/> Special Function Areas	Additional "Use it or lose it" Allowance (Watts)		01
Table L (below)	Table M	Table N	Table O	Table P
864.3	1,260			2,124.3

Calculated General Lighting Power Allowance

02	03	04	05	06	07	08	09
Area Description	Primary Function per Table	Room Configuration	Room Configuration	Allowed Density (W/ft²)	Area (ft²)	Extra Allowance (Watts)	Power Adjustment (See Table R)
Retail	Retail Merch	Rectangular	Rectangular	1.34	645	864.3	<input type="checkbox"/> PAF
Room Length (ft)	Room Width (ft)	Height (ft)*	Room Cavity Ratio (RCR)				
43	15	10	4.5				
Total General Power Allowance (Watts) CONDITIONED SPACES:							864.3

\*Height is the vertical distance from the work plane to the centerline of the lighting fixture per Table 140.6-F.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

Table Continued

CA Building Energy Efficiency Standards - 2019 with 2022 Compliance - <http://www.energy.ca.gov/title24/2019standards> July 2017



# "New" Example

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRCC-LTI-E (Created 7/17)

CERTIFICATE OF COMPLIANCE

Project Name: "New" Project Scenario  
 Project Address: Example Project

**T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Table Instructions: Selections have been made based on information provided in previous table E. Additional Remarks. These documents must be provided to the building inspector during the permit process. For more information visit: [www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCC-LTI-E](http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCC-LTI-E)

YES	NO	Form/Title
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-01-E - Must be submitted for all buildings
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-02-E - Must be submitted for a lighting control system, or form recognized for compliance.
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-03-E - Must be submitted for a line-voltage track lighting in protection panel used to energize only line-voltage track lighting, to
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-04-E - Must be submitted for two interlocked systems serving a room, a multipurpose room, or a theater to be recognized for compliance.
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF)
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-06-E - Must be submitted for additional wattage installed in compliance.

**U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

Table Instructions: Selections have been made based on information provided in previous table E. Additional Remarks. These documents must be provided to the building inspector during the permit process. For more information visit: <http://www.energy.ca.gov/title24>

YES	NO	Form/Title
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRCC-LTI-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

Project Name: "New" Project Scenario  
 Project Address: Example Project

Report Page: Page 8 of 8  
 Date Prepared: 8/30/2017 Ver 4

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

Documentation Author Name: Gina Rodda  
 Company: Gabel Energy  
 Address: 123 First St.  
 City/State/Zip: Castro Valley CA 94546

Documentation Author Signature:  
 Signature Date: 8/30/17  
 CEA/ HERS Certification Identification (if applicable):  
 Phone: 510-000-0000

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

- 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.

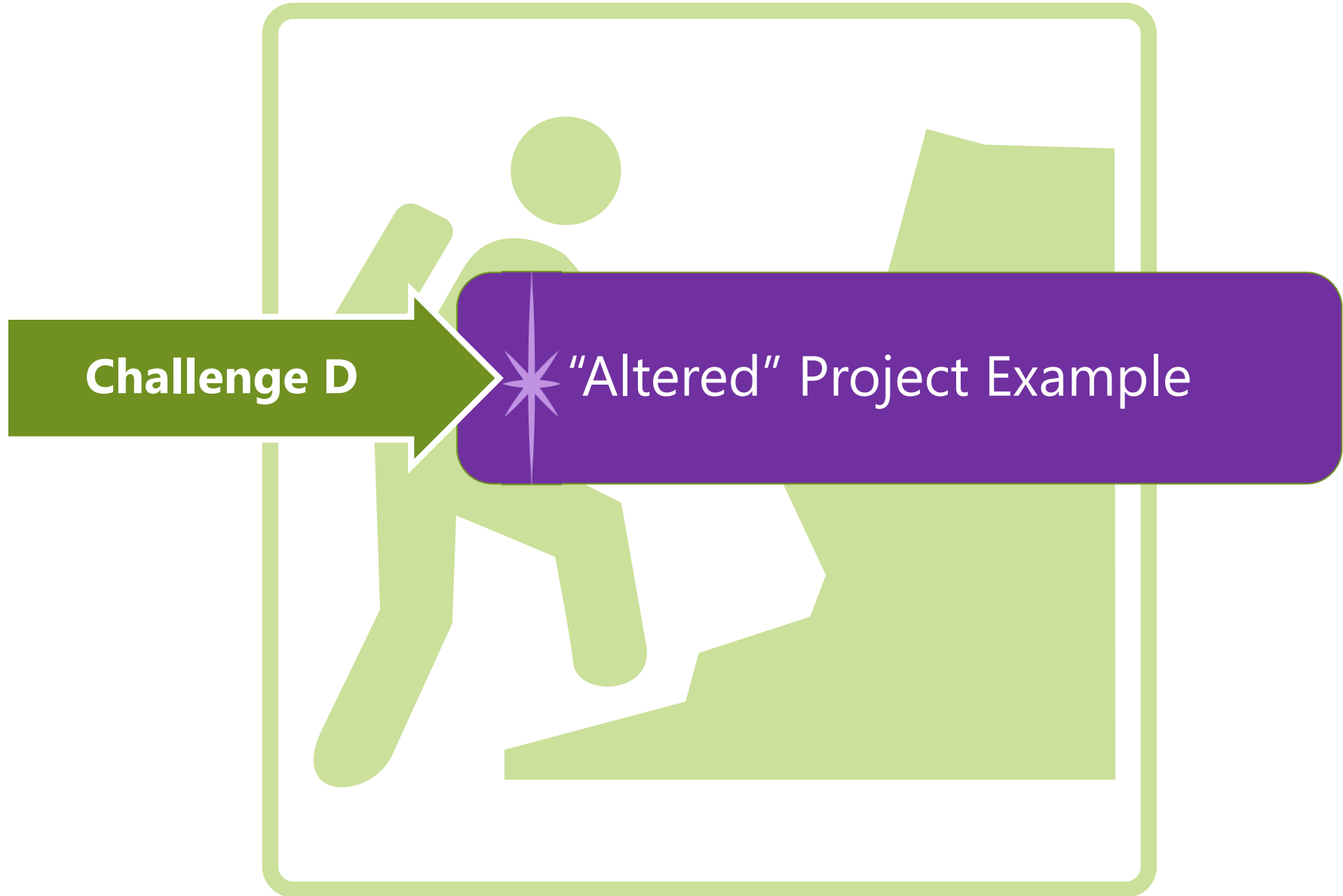
Responsible Designer Name: Michael Scalzo  
 Company: Scalzo Electric  
 Address: 1234 Second St.  
 City/State/Zip: LA, CA 95444

Responsible Designer Signature:  
 Date Signed: 8/30/17  
 License: C654321  
 Phone: 510-000-0000



# Challenge D

---





# "Retrofit" Example

# Page 1 of 8

A. GENERAL INFORMATION					
01	Project Location (city)	San Francisco		04	Total Conditioned Floor Area (ft <sup>2</sup> )
02	Climate Zone	3		05	Total Unconditioned Floor Area (ft <sup>2</sup> )
03	Occupancy Types Within Project (select all that apply):			06	# of Stories (Habitable Above Grade)
<input type="checkbox"/> Office		<input type="checkbox"/> Retail		<input type="checkbox"/> Warehouse	
<input type="checkbox"/> Parking Garage		<input type="checkbox"/> High-Rise Residential		<input type="checkbox"/> Relocatable	
<input type="checkbox"/> Hotel/Motel		<input type="checkbox"/> School		<input type="checkbox"/> Support Areas	
<input type="checkbox"/> Other (write in):					

B. PROJECT SCOPE				
<p><b>Table Instructions:</b> Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. <b>WARNING:</b> Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".</p>				
Scope of Work		Conditioned Spaces		Unconditioned Spaces
01		02	03	04
My Project Consists of (check all that apply):		Calculation Method	Area (ft <sup>2</sup> )	Calculation Method
<input type="checkbox"/> New Lighting System				
<input checked="" type="checkbox"/> Altered Lighting System		Add Parking Garage-Complete Bldg Method		Remove Parking Garage
Luminaire Component Modification		Rated Power Reduction		Rated Power Reduction
		Add Altered Lighting System		Remove Last Altered System
<b>Total Area of Work (ft<sup>2</sup>)</b>				

STATE OF CALIFORNIA  
Indoor Lighting  
Certificate  
This document  
Project Name  
Project Address

C. COMPLIANCE RESULTS										
<p><b>Table Instructions:</b> If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, for guidance.</p>										
Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)7.	Allowable Lighting Power per §140.6(b) (Watts)				Actual Lighting Power per §140.6(a) (Watts)				Compliance Results	
	01	02	03	04	05	06	07	08		09
	Complete Building	Area Category	Tailored Footcandle		Total Allowed (Watts)	Total Design (Watts)	Adjustments	PAF Control Credits	Total Actual (Watts)	05 Must be > 09
	§140.6(c)1	§140.6(c)2	§140.6(c)2 (+)			§140.6(a)	§140.6(a)2 (-)	§140.6(a)2 (-)		§140.6
	(See Table I)	(See Table J)	(See Table K)	(See Table L)		(See Table F)	(See Table J)	(See Table R)		Not Applicable
Conditioned:										Not Applicable
Unconditioned:										Not Applicable
Controls Compliance (See Table H for Details)										
Rated Power Reduction Compliance (See Table S for Details)										

# Scope of Work

Table A/B



# "Retrofit" Example

# Page 1 of 8

C. COMPLIANCE RESULTS													
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.													
Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					=	≥	Actual Lighting Power per §140.6(a) (Watts)			=	10	
	01	02	03	04	05			06	07	08			09
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Footnotes §140.6(c)2G (+) (See Table K)	Tailored §140.6(c)3 (+) (See Table L)	Total Allowed (Watts)			Total Designed (Watts) (See Table F)	Adjustments				Total Actual (Watts) *Includes Adjustments
									Portable Lighting §140.6(a) (-) (See Table J)	PAF Control Credits §140.6(a)2 (-) (See Table R)			
Conditioned:											Not Applicable		
Unconditioned:											Not Applicable		
Controls Compliance (See Table H for Details)										Not Applicable			
Rated Power Reduction Compliance (See Table S for Details)										COMPLIES			

STATE OF CALIFORNIA  
Indoor Lighting  
NRC-111 (08/01/2017)

CALIFORNIA ENERGY COMMISSION  
NRC-111-E

CERTIFICATE OF COMPLIANCE  
This document is used to demonstrate compliance with requirements in §110.9, §130.D, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

Project Name: "Retrofit" Example (140.6(b)1) Report Page: Page 1 of 8  
Project Address: Existing Site Date Prepared: 8/31/2017

**A. GENERAL INFORMATION**

01 Project Location (city): San Francisco  
02 Climate Zone: 3  
03 Occupancy Type:  Office  Warehouse Residential  Warehouse  Hotel/Motel  School  Support Areas  
 Parking Garage  Relocatable  Other (write in):

**B. PROJECT SCOPE**

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new permit.

Scope of Work:  
02 My Project Consists of:  New Lighting System  Altered Lighting System  
03 Calculation Method: Rated Power Reduction  
04 Area (ft²):  
05 Calculation Method: Rated Power Reduction  
06 Area (ft²):

**C. COMPLIANCE RESULTS**

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)					=	≥	Actual Lighting Power per §140.6(a) (Watts)			=	10	
	01	02	03	04	05			06	07	08			09
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Footnotes §140.6(c)2G (+) (See Table K)	Tailored §140.6(c)3 (+) (See Table L)	Total Allowed (Watts)			Total Designed (Watts) (See Table F)	Adjustments				Total Actual (Watts) *Includes Adjustments
									Portable Lighting §140.6(a) (-) (See Table J)	PAF Control Credits §140.6(a)2 (-) (See Table R)			
Conditioned:											Not Applicable		
Unconditioned:											Not Applicable		
Controls Compliance (See Table H for Details)										Not Applicable			
Rated Power Reduction Compliance (See Table S for Details)										COMPLIES			

# Compliance

Table C



# "Retrofit" Example

# Page 2 of 8

## D. EXCEPTIONAL CONDITIONS

*This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.*

Table S. Rated Power Reduction by Space Permit Applicant Notes:

Building Level Mandatory Controls: Multi Family Building: 24 hour 7 day a week facility

Leasing Office: Partial On occupancy sensor as required per code

Garage: On/ off controls not accessible to public as allowed by code

## E. ADDITIONAL REMARKS

*This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.*

17	Maintenance	No	Ceiling Mount	Incandescent	1	100	3	3	12W LED A19	12	X	X		
----	-------------	----	---------------	--------------	---	-----	---	---	-------------	----	---	---	--	--

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NBCC-L11-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Project Name: "Retrofit" Example (Job # 15001) Report Page: Page 2 of 8  
 Project Address: Existing Site Date Prepared: 8/31/2017

**D. EXCEPTIONAL CONDITIONS**  
*This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.*

Table S. Rated Power Reduction by Space Permit Applicant Notes:  
 Building Level Mandatory Controls: Multi Family Building: 24 hour 7 day a week facility  
 Leasing Office: Partial On occupancy sensor as required per code  
 Garage: On/ off controls not accessible to public as allowed by code

**E. ADDITIONAL REMARKS**  
*This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.*

**G. TRACK LIGHTING**  
*This Section Does Not Apply*

**H. INDOOR LIGHTING CONTROLS (Including PAFs)**  
*This Section Does Not Apply*

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**  
*This Section Does Not Apply*

**J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES**  
*This Section Does Not Apply*

**K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES**  
*This Section Does Not Apply*

**L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE**  
*This Section Does Not Apply*

**M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS**  
*This Section Does Not Apply*

# Communication

Table D/E 46



# "Retrofit" Example

# Page 3 of 8

## S. RATED POWER REDUCTION COMPLIANCE BY SPACE ?

Table Instructions: Complete this table for indoor lighting alterations complying prescriptively with [§141.0\(b\)2I\(ii\)](#) or [§141.0\(b\)2J\(ii\)](#). Any control options having a \* will require a note in the Notes section of this table, otherwise the compliance status will say "DOES NOT COMPLY."

Fixture Schedule (Include all luminaires being removed or installed in the project)

01	02	03	04	05	06	07
Name or Item tag	Removed Luminaire Information			Installed Luminaire Information		
	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined
1	Compact Fluorescent	26	CEC Default	12W LED A19	12	Other <sup>1</sup>
2	Incandescent	100	CEC Default	12W LED A19	12	Other <sup>1</sup>
3	Linear Fluorescent	40	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
4	Compact Fluorescent	18	CEC Default	18W LED 8" Downlight	18	Other <sup>1</sup>
5	Compact Fluorescent	26	CEC Default	12W LED 6" Downlight	12	Other <sup>1</sup>
6	Incandescent	60	CEC Default	8W LED BR30	8	Other <sup>1</sup>
7	Linear Fluorescent	32	CEC Default	16W LED U-Bent Tube	16	Other <sup>1</sup>
8	Linear Fluorescent	32	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
9	Compact Fluorescent	13	CEC Default	11W LED Linear Retrofit	11	Other <sup>1</sup>
10	Compact Fluorescent	23	CEC Default	12W LED A19	12	Other <sup>1</sup>
11	Compact Fluorescent	13	CEC Default	10W LED Surface Retrofit	10	Other <sup>1</sup>
12	Compact Fluorescent	23	CEC Default	12W LED 6" Downlight	12	Other <sup>1</sup>
13	Linear Fluorescent	32	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
14	Linear Fluorescent	32	Other <sup>1</sup>	12W LED 4' Tube	12	Other <sup>1</sup>
15	Compact Fluorescent	13	Other <sup>1</sup>	9W LED GU24 A19	9	Other <sup>1</sup>
16	Compact Fluorescent	26	Other <sup>1</sup>	12W LED A19	12	Other <sup>1</sup>
17	Incandescent	100	CEC Default	12W LED A19	12	Other <sup>1</sup>
				Reset	Add Name or Tag	Remove Last

01	02	03	04	05	06	07
Name or Item tag	Removed Luminaire Information			Installed Luminaire Information		
	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined
1	Compact Fluorescent	26	CEC Default	12W LED A19	12	Other <sup>1</sup>
2	Incandescent	100	CEC Default	12W LED A19	12	Other <sup>1</sup>
3	Linear Fluorescent	40	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
4	Compact Fluorescent	18	CEC Default	18W LED 8" Downlight	18	Other <sup>1</sup>
5	Compact Fluorescent	26	CEC Default	12W LED 6" Downlight	12	Other <sup>1</sup>
6	Incandescent	60	CEC Default	8W LED BR30	8	Other <sup>1</sup>
7	Linear Fluorescent	32	CEC Default	16W LED U-Bent Tube	16	Other <sup>1</sup>

Table Continued  
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> July 2017

# Fixture Schedule

Table S



# "Retrofit" Example

# Page 4 of 8

Building Level Mandatory Controls		Table S COMPLIANCE STATUS <sup>2</sup>	
08	09	10	
Building Shut-Off Controls <a href="#">§130.1(c)</a>	EMCS <a href="#">§130.0(e)</a> or Lighting Control System <a href="#">§110.9</a>		
Whole Building "Other" *	<input type="checkbox"/>	COMPLIES	

4	Common Areas	Yes	Recessed Can	Compact Fluorescent	2	18	16	16	18W LED 8" Downlight	18	X	X		
5	Common Areas	Yes	Recessed Can	Compact Fluorescent	1	26	3	3	12W LED 6" Downlight	12	Y	Y		

\*Notes: Controls with a \* require a note in the space below explaining how compliance is achieved.

Building Level Mandatory Controls	Multi Family Building: 24 hour 7 day a week facility
Leasing Office	Partial On occupancy sensor as required per code
Garage	On/ off controls not accessible to public as allowed by code

<sup>1</sup>Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per [§130.0\(c\)](#)

<sup>2</sup>All spaces in the project must individually comply for the project to comply

# Rated Power Reduction Building Controls

Table S 48

STATE OF CALIFORNIA  
Indoor Lighting  
NRC-C-11-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION  
NRC-C-11-E

CERTIFICATE OF COMPLIANCE  
Project Name: "Retrofit" Example (Job #: 15001) Report Page: Page 4 of 8  
Project Address: Existing Site Date Prepared: 8/31/2017

Removed Luminaire Information				Installed Luminaire Information			
Name or Item Tag	Quantity	Watts per Luminaire <sup>1</sup>	How Wattage is Determined	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined	
8	Linear Fluor	32	CEC Default	12W LED 4" Tube	12	Other <sup>2</sup>	
9	Compact Fluor	13	CEC Default	11W LED Linear Retrofit	11	Other <sup>2</sup>	
10	Compact Fluor	23	CEC Default	12W LED A19	12	Other <sup>2</sup>	
11	Compact Fluor	13	CEC Default	10W LED Surface Retrofit	10	Other <sup>2</sup>	
12	Compact Fluor	23	CEC Default	12W LED 6" Downlight	12	Other <sup>2</sup>	
13	Linear Fluor	32	CEC Default	12W LED 4" Tube	12	Other <sup>2</sup>	
14	Linear Fluor	32	Other <sup>2</sup>	12W LED 4" Tube	12	Other <sup>2</sup>	
15	Compact Fluor	13	Other <sup>2</sup>	9W LED GU24 A19	9	Other <sup>2</sup>	
16	Compact Fluor	26	Other <sup>2</sup>	12W LED A19	12	Other <sup>2</sup>	
17	Incandescent	100	CEC Default	12W LED A19	12	Other <sup>2</sup>	

Building Level Mandatory Controls		Table S COMPLIANCE STATUS <sup>2</sup>	
08	09	10	
Building Shut-Off Controls <a href="#">§130.1(c)</a>	EMCS <a href="#">§130.0(e)</a> or Lighting Control System <a href="#">§110.9</a>		
Whole Building "Other" *	<input type="checkbox"/>	COMPLIES	

Space By Space Compliance			
AREA DESCRIPTION	Space Type	Wattage Reduction Required per <a href="#">§141.0(b)(2)</a>	Area Level Mandatory Controls
Common	All Other	35%	Area Controls <a href="#">§130.1(a)</a> Shut-Off Controls <a href="#">§130.1(c)</a> Occupancy Sensor

Removed Luminaire Information			Installed Luminaire Information		
Name or Item Tag	Number of Luminaires Being Removed	Total Wattage Being Removed	Number of Luminaires Being Installed	Total Wattage Being Installed	
1		364	14	168	
2		2,000	20	240	
3		1,040	26	312	

Table Continued

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> July 2017





# "Retrofit" Example

# Page 5/6 of 8

Space By Space Compliance (Identify luminaires being removed or installed in each space within the permit scope)						
11		12		13		
AREA DESCRIPTION		Space Type	Wattage Reduction Required per §141.0(b)2	Area Level Mandatory Controls		
Garage		All Other	35%	Area Controls §130.1(a) Authorized Personnel *	Shut-Off Controls §130.1(c) Partial Off *	
14	15	16		17	18	
Name or Item Tag	Removed Luminaire Information			Installed Luminaire Information		
	Number of Luminaires Being Removed	Total Wattage Being Removed		Number of Luminaires Being Installed	Total Wattage Being Installed	
14	133	4,256		133	1,596	
PERCENT REDUCTION FOR SPACE:				19	Add Luminaire	Remove Last
				62.5	COMPLIES	

Building Level Mandatory Controls		Multi Family Building: 24 hour 7 day a week facility
Leasing Office		Partial On occupancy sensor as required per code
Garage		On/ off controls not accessible to public as allowed by code

<sup>1</sup>Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)  
<sup>2</sup>All spaces in the project must individually comply for the project to comply

# Reduction Space Control and Wattage

Space By Space Compliance (Identify luminaires being removed or installed in each space within the permit scope)						
11		12		13		
AREA DESCRIPTION		Space Type	Wattage Reduction Required per §141.0(b)2	Area Level Mandatory Controls		
Garage		All Other	35%	Area Controls §130.1(a) Manual ON/OFF	Shut-Off Controls §130.1(c) Occupancy Sensor	
14	15	16		17	18	
Name or Item Tag	Removed Luminaire Information			Installed Luminaire Information		
	Number of Luminaires Being Removed	Total Wattage Being Removed		Number of Luminaires Being Installed	Total Wattage Being Installed	
14	133	4,256		133	1,596	
PERCENT REDUCTION FOR SPACE:				19	Add Space	Remove Last
				59.7	COMPLIES	

Building Level Mandatory Controls		Multi Family Building: 24 hour 2 day a week facility
Leasing Office		Partial On occupancy sensor as required per code
Garage		On/off controls not accessible to public as allowed by code

<sup>1</sup>Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)  
<sup>2</sup>All spaces in the project must individually comply for the project to comply



# "Retrofit" Example

# Page 7/8 of 8

STATE OF CALIFORNIA  
**Indoor Lighting**  
NRCC-LTI-E (Created 7/17)

CERTIFICATE OF COMPLIANCE	
Project Name: "Retrofit" Example (Job #: 15001)	Report Page:
Project Address: Existing Site	Date Prepared: 8/31/2017

**T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Table Instructions: Selections have been made based on information provided in previous tables of this document Table E. Additional Remarks. These documents must be provided to the building inspector during construction at [www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI](http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI)

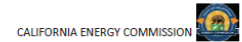
YES	NO	Form/Title
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTI-01-E - Must be submitted for all buildings
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Man recognized for compliance.
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limi protection panel used to energize only line-voltage track lighting, to be recognized for
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, room, a multipurpose room, or a theater to be recognized for compliance.
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recogni
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferen compliance.

**U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

Table Instructions: Selections have been made based on information provided in previous tables of this document Table E. Additional Remarks. These documents must be provided to the building inspector during construction a Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.h>

YES	NO	Form/Title	Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA  
**Indoor Lighting**  
NRCC-LTI-E (Created 7/17)



CERTIFICATE OF COMPLIANCE	
Project Name: "Retrofit" Example (Job #: 15001)	Report Page: Page 8 of 8
Project Address: Existing Site	Date Prepared: 8/31/2017

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

Documentation Author Name: Gina Rodda	Documentation Author Signature:
Company: Gabel Energy	Signature Date: 8/31/2017
Address: 1234 First St	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Castro Valley CA 94546	Phone: 510-000-0000

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

- 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: Michael Scalzo	Responsible Designer Signature:
Company: Scalzo Electric	Date Signed: 8/31/2017
Address: 5678 Sencond St.	License: C654321
City/State/Zip: LA, CA 94333	Phone: 510-000-0000



# Next Steps



HELPING YOU PLAY YOUR CARDS RIGHT

2016 ENERGY CODE



Table 24, Part 6  
Fact Sheet

Nonresidential  
Indoor Lighting Wheel

The Energy Code Ace Indoor Lighting Wheel is designed as a quick reference to check whether an indoor lighting installation in various areas of a nonresidential building meets 2016 Title 24, Part 6 requirements – without the need to dive into the Standards language itself. It covers the following for both new construction and alterations:

- Allowed lighting power (W/ft<sup>2</sup>) for a given lighting area category
  - Prescriptive Area Category Allowances: §140.8(a)(2)
- Lighting controls necessary for a given area category
  - Mandatory Lighting Controls §130.1(a)-(e); Prescriptive Lighting Controls §140.8(a)(2 and (d))
- Special considerations and exceptions for the above
  - Alterations §141.0B(2)-J including Table 141.0-E

Overview

Features 2 sides with 3 movable layers that interact with each other:

1. Front side includes the Energy Code Ace logo and the most common area types in office buildings
2. Back side includes "Footnotes" information and area types not typically associated with office buildings
3. Top layer on each side has "Controls" section with arrows pointing to lighting area types ("area categories" in the Standards) on the left and code triggers on the right
4. Different area types printed on the middle and bottom layers (white and black sections) Middle and bottom layers do not interact with each other

To use:

- Rotate top layer so its cutout lines up with an area type section on middle layer
- OR
- Line up cutouts on both top and middle layers to see area types on bottom layer



Lighting Controls Requirements

1. All Mandatory and Prescriptive controls associated with indoor lighting included, along with code sections
2. Control exceptions, or options, applicable to the area type also listed
3. Check boxes show when a lighting control is required:
  - Required: The checkbox is filled.
  - Not required: The checkbox is left blank.

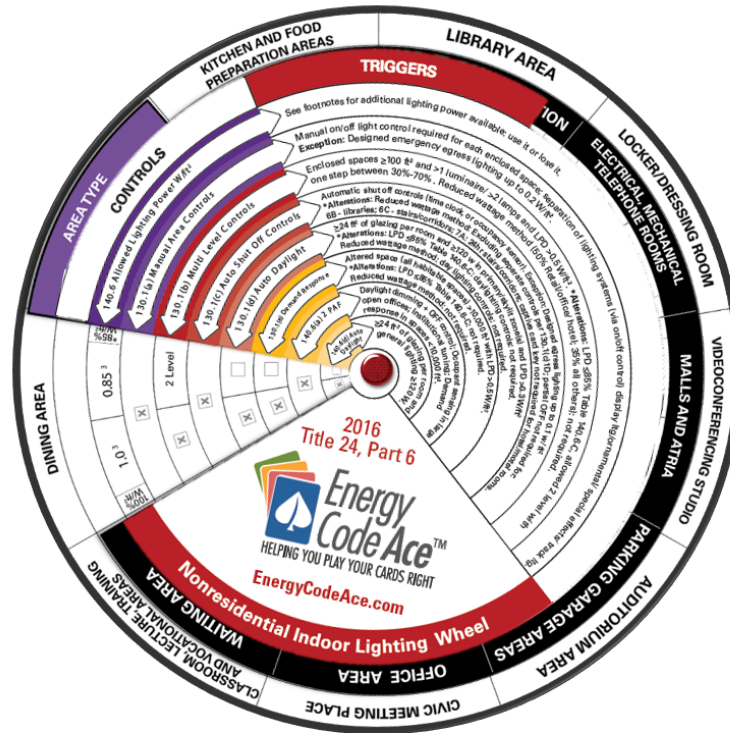


Control Triggers

1. Triggers to control requirements included per control type  
 Example: Multi-level controls are triggered when a space is 100 ft<sup>2</sup> or greater, AND has more than 1 fixture with 2 lamps or more AND has lighting power density (LPD) greater than 0.5 W/ft<sup>2</sup>.
2. \*Alterations triggers are specific to the control requirements associated with alterations.  
 Example: In an alteration using the Reduced Wattage Method, multi-level controls are NOT required.



## NR Lighting Wheel and Instruction Sheet





# Troubleshooting Guide

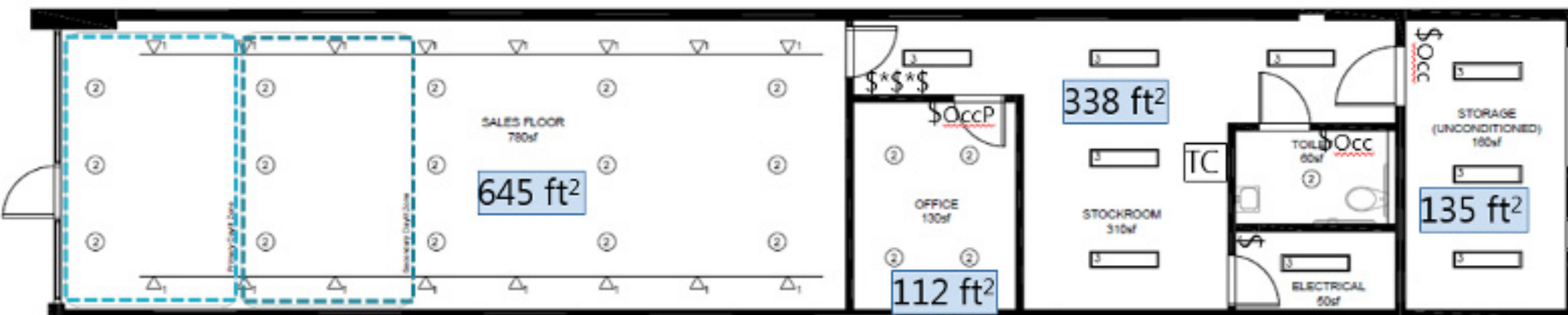
Issue	Known Issues	Potential Solution(s)		
<b>Form won't open</b>	Bluebeam, Adobe Reader Dx, and Nuance PDF are currently not compatible	Use any other PDF software such as Adobe Reader DC		
<b>Tables are not opening when I think they should</b>	In Table B "Project scope" provide all the information in the blue boxes for form to work properly	Make sure ALL the blue input cells are completed, this will trigger specific tables throughout the form	Hit "reset" button (if available) or go to Table B and select scope again (BEING AWARE this removes all work on applicable tables)	Table B: Make sure for "Altered Projects" that the alteration type is selected in column 1; Makes sure that the "area" in column 3 is filled it
<b>A table is not resetting when I delete things</b>	Sometimes the form gets confused when you remove and add a bunch of things.	Use the "reset" button, they are provided where this might happen, when wanting to start over on a table, but don't want to open a whole new form	Open up the form from scratch (see previous solution if you don't like starting from scratch)	Use Table B and select scope again (BEING AWARE this removes all work on applicable tables)
<b>General Information (Table A): Why is the form asking for CZ? # of stories?</b>	To provide consistency among all the forms, these inputs were selected	Provide all applicable information		
<b>Compliance Results (Table C) says "Does Not Comply"</b>	EVERY blue "input" cell must be completed on the form before Table C can assess compliance	Confirm that all Tables "expanded" have been filled out, since the scope of work dictates this information is required for compliance	Confirm that the allowed wattage is equal or less than the installed wattage in Table C and that in Table H lighting controls have been input in	If any pull down options in a table include a *, then a *NOTES will open up at the bottom left of that specific table, this MUST BE FILLED
<b>Compliance Results (Table C) has cells greyed out and I cannot fill them out</b>	This is on purpose since these are auto calculate functions of the form	Use the guidance provided which states which tables autofill to these cells. i.e. Column 1 Complete Building "See Table I"	Nothing on this table is a user input, and can only be populated by filling out appropriate tables on the form which open up when Project Scope (Table B) is filled out	
<b>Project Scope (Table B) only allows me to select one "new" lighting system method</b>	Since Complete Building cannot be combined with Area Category or Tailored Method, the form set limits so that form is accurate to code allowances	In column 2 you will see a variety of options that are allowed by code, read through them on to select the combination of methods you are using	Verify in Title 24 Part 6 that you understand the code parameters in showing compliance. Code sections are provided within the form	

# Troubleshooting Guide

Issue	Known Issues	Potential Solution(s)		
<b>Indoor Fixture Schedule (Table F) has not opened</b>	Project Scope (Table B) auto expands appropriate tables based on scope of work	Fill out all the “input” cells on Project Scope (Table B) appropriate to project scope		
<b>Indoor Fixture Schedule (Table F) when would I select column 7 “Exempt per 140.6(a)3”</b>	The fixture schedule was created to replicate a fixture schedule. Not all light fixtures need to show compliance to code	Confirm that the light you are indicating as “exempt” really is so that the AHJ and contractor are aware of how to treat ALL light fixtures for compliance		
<b>Indoor Fixture Schedule (Table F) is not showing the design watts in column 8</b>		Make sure that column 7 “exempt” is not selected		
<b>Indoor Fixture Schedule (Table F): I cannot select the “Pass/Fail” boxes in column 9</b>	These are provided for the field inspector to assist in verifying installed light fixtures	These are not fillable on purpose because they are a toll for the field inspector in the printed form available in the field.		
<b>Track Lighting (Table G): I don't know what the Total Amps of the track is?</b>	Track lighting compliance is dependent upon the size of the track system and must be defined at design stage	Design track system using track lighting manufacturer data for specific track being used	Set energy compliance by establishing min. track Amps to be installed by Contractor	Request cutsheets for track lighting system which typically provides this information
<b>Additional Allowances/Adjustments tables are not opened up (Table J,K,L)</b>	Lighting Power Allowance (Table I) must indicate that these tables are applicable	Select the appropriate box in column 6 for the additional allowance/adjustment table to open up		
<b>Reduced Wattage Method (Table S) is not showing “COMPLIES”</b>	Compliance is NOT shown on Table C like all other scope of work but within Table S	Table S must have all the blue cells input including controls (and any notes to the controls) before “COMPLIES” will be stated		
<b>Page breaks are in an awkward place</b>	Since this is a dynamic form without static pages (to minimize number of pages) there is no way to project how <i>YOUR</i> project will complete the form	Add rows to tables in which it will not deter the form from showing compliance in Compliance Results (Table C) such as Table E or F	You might need to change your “scrolling” setting on your pointing device to a smaller setting (such as per line instead of per paragraph)	
<b>Form is “locked” and I cannot make any more edits to the form</b>	Signature table includes a “sign here” function accessed by clicking these icons that insert digital signature. Once this has been completed, the form is “locked” to assure signature is applicable to documented work	DO NOT CLICK the “sign here” unless you are positive you are done.	“SAVE AS” another form name so that original file is still accessible	



# "New" Example



\$\* on/off/dimmer switch in Stockroom for Sales Area  
 \$ on/off/dimmer switch in room

\$OccP on/off/dimmer and Partial On Occupancy Sensor  
 \$Occ on/off/dimmer and Occupancy Sensor  
 TC Timeclock

## LIGHT SCHEDULE

	DESCRIPTION	QUANTITY	WATTS PER FIXTURE
▽1	JUNO TRACK LIGHTING W/ 10w LED SERIES HEAD PROVIDE CURRENT LIMITER FOR MAX 10 WATTS PER LINEAR FOOT	2 TRACKS AT 40' EACH 16 HEADS	400 WATTS Current Limiter VA=1350 watts
②	HI LITE MGF – WAREHOUSE SHADE – H-15117 PENDANT	20 FIXTURES	18 WATTS
3	4' (1) LAMP LITHONIA LOW PROFILE LB WITH (1) T8 BULBS EACH	9 FIXTURES	29 WATTS



## Indoor Lighting

NRCC-LTI-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION



## CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

This document is used to demonstrate compliance with requirements in [§110.9](#), [§130.0](#), [§130.1](#), [§140.6](#), and [§141.0\(b\)2](#) for indoor lighting scopes using the prescriptive path.

Project Name: "New" Project Scenario

Report Page:

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Project Address: Example Project

Date Prepared:

8/30/2017 Ver 4

## A. GENERAL INFORMATION

01	Project Location (city)	Example	04	Total Conditioned Floor Area (ft <sup>2</sup> )	1,095
02	Climate Zone	2	05	Total Unconditioned Floor Area (ft <sup>2</sup> )	135
03	Occupancy Types Within Project (select all that apply):			06	# of Stories (Habitable Above Grade)
<input type="checkbox"/> Office		<input checked="" type="checkbox"/> Retail		<input type="checkbox"/> Warehouse	
<input type="checkbox"/> Parking Garage		<input type="checkbox"/> High-Rise Residential		<input type="checkbox"/> Relocatable	
		<input type="checkbox"/> Hotel/Motel		<input type="checkbox"/> School	
				<input type="checkbox"/> Support Areas	
		<input type="checkbox"/> Other (write in):			

## B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in [§140.6](#) or [§141.0\(b\)2](#) for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work		Conditioned Spaces		Unconditioned Spaces	
01		02	03	04	05
My Project Consists of (check all that apply):		Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input checked="" type="checkbox"/> New Lighting System		Area Category + Tailored	1,095	Area Category	135
<input type="checkbox"/> Altered Lighting System					
<b>Total Area of Work (ft<sup>2</sup>)</b>		<b>1,095</b>		<b>135</b>	

## C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per <a href="#">§140.6(b)1</a> .	Allowed Lighting Power per <a href="#">§140.6(b)</a> (Watts)					Actual Lighting Power per <a href="#">§140.6(a)</a> (Watts)				Compliance Results
	01	02	03	04	05	06	07	08	09	10
	Complete Building <a href="#">§140.6(c)1</a> (See Table I)	Area Category <a href="#">§140.6(c)2</a> (See Table I)	Area Category Footnotes <a href="#">§140.6(c)2G</a> (+) (See Table K)	Tailored <a href="#">§140.6(c)3</a> (+) (See Table L)	Total Allowed (Watts)	Total Designed (Watts) (See Table F)	Adjustments		Total Actual (Watts) *Includes Adjustments	05 Must be ≥ 09 <a href="#">§140.6</a>
								Portable Lighting <a href="#">§140.6(a)</a> (-) (See Table J)		
<b>Conditioned:</b>		286.8		2,124.3	<b>2,411.1</b>	1,884			<b>1,884</b>	<b>COMPLIES</b>
<b>Unconditioned:</b>		81			<b>81</b>	87			<b>87</b>	<b>DOES NOT COMPLY</b>
<b>Controls Compliance (See Table H for Details)</b>									<b>COMPLIES with Exceptional Conditions</b>	
<b>Rated Power Reduction Compliance (See Table S for Details)</b>									<b>Not Applicable</b>	

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)

**CERTIFICATE OF COMPLIANCE**

NRCC-LTI-E

Project Name: "New" Project Scenario

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**D. EXCEPTIONAL CONDITIONS***This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.*

Track Lighting has been included in this project, details are provided in Table G.

Table H. Indoor Lighting Controls Permit Applicant Notes:

Sales Floor: Switches in Stockroom

Office: Partial On Occupancy Sensor provided as required by code

Accent/Display lighting has been indicated in Tables K or L. These spaces must include dedicated luminaires controlled as general lighting per §130.1 and §140.6.

**E. ADDITIONAL REMARKS***This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.*

Current limiter assumed to be 14 AMPS, to be verified when specific product installed by contractor

**F. INDOOR LIGHTING FIXTURE SCHEDULE***Table Instructions: Include all permanent designed lighting and all portable lighting in offices.***Designed Wattage: Conditioned Spaces**

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per <a href="#">§140.6(a)3</a>	Design Watts	Field Inspector	
		Track	Portable						Pass	Fail
1	Juno Track	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,350	See Table G	1	<input type="checkbox"/>	1,350	<input type="checkbox"/>	<input type="checkbox"/>
2	Hi Lite Pendant	<input type="checkbox"/>	<input type="checkbox"/>	18	Mfr. Spec <sup>1</sup>	20	<input type="checkbox"/>	360	<input type="checkbox"/>	<input type="checkbox"/>
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NA8 Default	6	<input type="checkbox"/>	174	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts CONDITIONED SPACES:</b>								<b>1,884</b>		

**Designed Wattage: Unconditioned Spaces**

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types		Watts per luminaire <sup>1</sup>	How Wattage is determined	Total number luminaires	Exempt per <a href="#">§140.6(a)3</a>	Design Watts	Field Inspector	
		Track	Portable						Pass	Fail
3	4' (1) Lamp T8	<input type="checkbox"/>	<input type="checkbox"/>	29	NA8 Default	3	<input type="checkbox"/>	87	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total Designed Watts UNCONDITIONED SPACES:</b>								<b>87</b>		

<sup>1</sup>NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per [§130.0\(c\)](#). Wattage used must be the maximum rated for the luminaire, not the lamp.

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



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Project Name: "New" Project Scenario		Report Page:	Page 3 of 8
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**G. TRACK LIGHTING**

Table Instructions: Complete this table for track lighting fixtures indicated on Table F. Luminaire classification and power should be per §130.0(c)7 & 8.

01	02	03	04				05			
Name or Item Tag	Complete Track Description	Total Amps of the Track and Busway <sup>3</sup>	Calculation Method per §130.0(c)7B				Track Wattage			
1	Juno Track	14	<input type="checkbox"/> i VA Rating of Branch Circuit	<input type="checkbox"/> ii Installed Luminaires vs Default 45 W/ft	<input checked="" type="checkbox"/> iii Current Limiter <sup>1</sup>	<input type="checkbox"/> iv Overcurrent Protection Panel <sup>2</sup>				
			VA of current limiter 1,350	OR	Linear ft of track 80	x	Default W/LF 12.5	=	Total Watts 1,000	1,350

1. Current limiters must be certified under Title 20 and a Certificate of Installation NRCI-LTI-03 must be completed when this method is used for compliance.

2. This method is only applicable to line-voltage track lighting. Overcurrent protection panels must be certified under Title 20 and a Certificate of Installation NRCI-LTI-03 must be completed when this method is used for compliance.

3. If the total Amps of the track and busway is greater than 20 Amps, only calculation method i may be used per §130.0(c)7A. Total Amps may be determined by manufacturer's literature or estimated from total input wattage of track system divided by Volts.

**H. INDOOR LIGHTING CONTROLS (Not Including PAFs)**

Table Instructions:

Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a \* is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

**Area Level Controls**

Building Level Controls									
01			02			03			
Mandatory Demand Response §130.1(e)			Shut-off Controls §130.1(c)			Field Inspector			
Not Required ≤ 10,000 SF			Whole Building: Automatic Time Switch			Pass	Fail		
04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector	
Sales Floor	Retail Merch., Showroom	Annunciated *	Dimmer	Auto Timeswitch	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office	Office (> 250 square feet)	Manual ON/OFF	Dimmer	Partial On *	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Auto Timeswitch	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table Continued

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



## CERTIFICATE OF COMPLIANCE

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04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls <a href="#">§130.1(a)</a>	Multi-Level Controls <a href="#">§130.1(b)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>	Primary/Skylit Daylighting <a href="#">§130.1(d)</a>	Secondary Daylighting <a href="#">§140.6(d)</a>	Interlocked Systems <a href="#">§140.6(a)1</a>	Field Inspector	
								Pass	Fail
Toilet	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncond. Storage	Corridor, Restrm, Stair, Support	Manual ON/OFF	Dimmer	See Bldg Level	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved. <i>EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to <a href="#">§130.1(d)2</a></i>						13			
						Plan Sheet Showing Daylit Zones:			
						L1			
Sales Floor	Switches in Stockroom								
Office	Partial On Occupancy Sensor provided as required by code								

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per [§140.6\(b\)](#). Indicate if additional lighting power allowances per [§140.6\(c\)](#) or adjustments per [§140.6\(a\)](#) are being used.

**Conditioned Spaces**

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Office	Office (> 250 square feet)	0.75	112	84	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stockroom/Electrical	Corridor, Restrm, Stair, Support	0.6	338	202.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL:</b>				<b>450</b>	<b>286.8</b>	See Tables J, K, R for detail	

**Unconditioned Spaces**

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustments		
					Footnotes	PAF	Portable Ltg
Uncond. Storage	Corridor, Restrm, Stair, Support	0.6	135	81	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL:</b>				<b>135</b>	<b>81</b>	See Tables J, K, R for detail	

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)

**CERTIFICATE OF COMPLIANCE**

NRCC-LTI-E

Project Name: "New" Project Scenario

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**J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES***This Section Does Not Apply***K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES***This Section Does Not Apply***L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE**

Table Instructions: Please complete this table for areas using the Tailored Method per [§140.6\(c\)3](#). Indicate below if any Tailored Method "special function areas" or additional "use it or lose it" allowances are needed. More than one additional allowance may apply, but lighting that qualifies for one of the additional "use it or lose it" allowances shall not qualify for another additional allowance.

**Conditioned Spaces**

General Lighting Power Allowance	Special Function Areas <input type="checkbox"/>	Additional "Use it or lose it" Allowance (Watts)				01 Total Allowed Watts using Tailored Method
		<input checked="" type="checkbox"/> Wall Display Lighting	<input type="checkbox"/> Floor Display & Task Lighting	<input type="checkbox"/> Ornamental & Special Effects	<input type="checkbox"/> Very Valuable Merchandise	
Table L (below)	Table M	Table N	Table O	Table P	Table Q	
864.3		1,260				2,124.3

**Calculated General Lighting Power Allowance**

02	03		04	05	06	07	08	09
Area Description	Primary Function Area per <a href="#">Table 140.6-D</a>		Illuminance Value (LUX)	Room Configuration	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Extra Allowance (Watts)	Power Adjustment (See Table R)
Retail	Retail Merchandise Sales		400	Rectangular	1.34	645	864.3	<input type="checkbox"/> PAF
	Room Length (ft)	Room Width (ft)	Height (ft) <sup>1</sup>	Room Cavity Ratio (RCR)				
	43	15	10	4.5				
<b>Total General Power Allowance (Watts) CONDITIONED SPACES:</b>							<b>864.3</b>	

<sup>1</sup>Height is the vertical distance from the work plane to the centerline of the lighting fixture per Table 140.6-F.

**M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS***This Section Does Not Apply***N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY****Conditioned Spaces**

Table Continued

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



## CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: "New" Project Scenario

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01	02	03	04	05	06	07	08	09	10	11
Area Description	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS						Additional Allowance (Watts)
	Wall Display Length (lf)	Wall Display Density (W/lf)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Mounting Height (ft)	Mounting Height Factor	Watts per Luminaire	# of Luminaires	Total Design Watts	
Retail	90	14	1,260	1	< 12 feet	1	1,350	1	1,350	
Total Design Watts for this Area:									1,350	1,260
<b>Total Additional Allowance (Watts) CONDITIONED SPACES:</b>										<b>1,260</b>

**O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING***This Section Does Not Apply***P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS***This Section Does Not Apply***Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE***This Section Does Not Apply***R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)***This Section Does Not Apply***S. RATED POWER REDUCTION COMPLIANCE BY SPACE***This Section Does Not Apply*

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)

**CERTIFICATE OF COMPLIANCE**

NRCC-LTI-E

Project Name: "New" Project Scenario

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Project Address: Example Project

Date Prepared:

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**T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

*Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at <http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI>*

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	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.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	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.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	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.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

**U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

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YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



## CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: "New" Project Scenario

Report Page:

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Project Address: Example Project

Date Prepared:

8/30/2017 Ver 4

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

Documentation Author Name: Gina Rodda

Documentation Author Signature:

Company: Gabel Energy

Signature Date:

8/30/17

Address: 123 First St.

CEA/ HERS Certification Identification (if applicable):

City/State/Zip: Castro Valley CA 94546

Phone:

510-000-0000

**RESPONSIBLE PERSON'S DECLARATION 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 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: Michael Scalzo

Responsible Designer Signature:

**SIGN HERE**

Company : Scalzo Electric

Date Signed:

8/30/17

Address: 1234 Second St.

License:

C654321

City/State/Zip: LA, CA 95444

Phone:

510-000-0000



### Retrofit Project

#	Area/Building	Conditioned?	Exist Luminaire Type	Light Source	Lamps/Fix	Existing Wattage	Existing Quantity	New Quantity	New Manufacturer Description	Proposed Wattage
1	Common Areas	Yes	Ceiling Mount	Compact Fluorescent	1	26	14	14	12W LED A19	12
2	Common Areas	Yes	Ceiling Mount	Incandescent	1	100	20	20	12W LED A19	12
3	Common Areas	Yes	Strip Fixture	Linear Fluorescent	2	40	26	26	12W LED 4' Tube and compatible ballast	12
4	Common Areas	Yes	Recessed Can	Compact Fluorescent	2	18	16	16	18W LED 8" Downlight	18
5	Common Areas	Yes	Recessed Can	Compact Fluorescent	1	26	3	3	12W LED 6" Downlight	12
6	Common Areas	Yes	Recessed Can	Incandescent	1	60	5	5	8W LED BR30	8
7	Common Areas	Yes	Troffer	Linear Fluorescent	2	32	4	4	16W LED U-Bent Tube with compatible ballast	16
8	Common Areas	Yes	Troffer	Linear Fluorescent	4	32	4	4	12W LED 4' Tube and compatible ballast	12
9	Common Areas	Yes	Wall Sconce	Compact Fluorescent	2	13	18	18	11W LED Linear Retrofit	11
10	Common Areas	Yes	Wall Sconce	Compact Fluorescent	1	23	1	1	12W LED A19	12
11	Leasing Office	Yes	Ceiling Mount	Compact Fluorescent	1	13	4	4	10W LED Surface Retrofit	10
12	Leasing Office	Yes	Recessed Can	Compact Fluorescent	1	23	26	26	12W LED 6" Downlight	12
13	Leasing Office	Yes	Troffer	Linear Fluorescent	4	32	9	9	12W LED 4' Tube and compatible ballast	12
14	Garage	No	Strip Fixture	Linear Fluorescent	1	32	133	133	12W LED 4' Tube and compatible ballast	12
15	Maintenance	No	Ceiling Mount	Compact Fluorescent	2	13	12	12	9W LED GU24 A19	9
16	Maintenance	No	Ceiling Mount	Compact Fluorescent	1	26	26	26	12W LED A19	12
17	Maintenance	No	Ceiling Mount	Incandescent	1	100	3	3	12W LED A19	12

# Indoor Lighting

NRCC-LTI-E (Created 7/17)

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
<i>This document is used to demonstrate compliance with requirements in <a href="#">§110.9</a>, <a href="#">§130.0</a>, <a href="#">§130.1</a>, <a href="#">§140.6</a>, and <a href="#">§141.0(b)2</a> for indoor lighting scopes using the prescriptive path.</i>		
Project Name: "Retrofit" Example (Job #: 15001)	Report Page:	Page 1 of 8
Project Address: Existing Site	Date Prepared:	8/31/2017

A. GENERAL INFORMATION <span style="float: right;">?</span>					
01	Project Location (city)	San Francisco	04	Total Conditioned Floor Area (ft <sup>2</sup> )	
02	Climate Zone	3	05	Total Unconditioned Floor Area (ft <sup>2</sup> )	
03	Occupancy Types Within Project (select all that apply):			06	# of Stories (Habitable Above Grade)
<input type="checkbox"/> Office <input type="checkbox"/> Retail <input type="checkbox"/> Warehouse <input type="checkbox"/> Hotel/Motel <input type="checkbox"/> School <input type="checkbox"/> Support Areas <input checked="" type="checkbox"/> Parking Garage <input checked="" type="checkbox"/> High-Rise Residential <input type="checkbox"/> Relocatable <input type="checkbox"/> Other (write in):					

B. PROJECT SCOPE <span style="float: right;">?</span>					
<i>Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in <a href="#">§140.6</a> or <a href="#">§141.0(b)2</a> for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".</i>					
Scope of Work		Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05	
My Project Consists of (check all that apply):		Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input type="checkbox"/> New Lighting System					
<input checked="" type="checkbox"/> Altered Lighting System	Luminaire Component Modification	Rated Power Reduction		Rated Power Reduction	
<b>Total Area of Work (ft<sup>2</sup>)</b>					

C. COMPLIANCE RESULTS <span style="float: right;">?</span>													
<i>Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.</i>													
Lighting in conditioned and unconditioned spaces must not be combined for compliance per <a href="#">§140.6(b)1</a> .	Allowed Lighting Power per <a href="#">§140.6(b)</a> (Watts)					Actual Lighting Power per <a href="#">§140.6(a)</a> (Watts)				Compliance Results			
	01	02	03	04	05	06	07	08	09	10			
	Complete Building <a href="#">§140.6(c)1</a> <small>(See Table I)</small>	Area Category <a href="#">§140.6(c)2</a> <small>(See Table I)</small>	Area Category Footnotes <a href="#">§140.6(c)2G</a> (+) <small>(See Table K)</small>	Tailored <a href="#">§140.6(c)3</a> (+) <small>(See Table L)</small>	=	<b>Total Allowed</b> (Watts)	≥	Total Designed (Watts) <small>(See Table F)</small>	Adjustments		=	<b>Total Actual</b> (Watts) *Includes Adjustments	<b>05 Must be ≥ 09</b> <a href="#">§140.6</a>
									Portable Lighting <a href="#">§140.6(a)</a> (-) <small>(See Table J)</small>	PAF Control Credits <a href="#">§140.6(a)2</a> (-) <small>(See Table R)</small>			
					=	≥			=	<b>Not Applicable</b>			
<b>Conditioned:</b>					=	≥			=	<b>Not Applicable</b>			
<b>Unconditioned:</b>					=	≥			=	<b>Not Applicable</b>			
<b>Controls Compliance (See Table H for Details)</b>									<b>Not Applicable</b>				
<b>Rated Power Reduction Compliance (See Table S for Details)</b>									<b>COMPLIES</b>				

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)

**CERTIFICATE OF COMPLIANCE**

NRCC-LTI-E

Project Name: "Retrofit" Example (Job #: 15001)

Report Page:

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Project Address: Existing Site

Date Prepared:

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**D. EXCEPTIONAL CONDITIONS***This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.*

Table S. Rated Power Reduction by Space Permit Applicant Notes:

Building Level Mandatory Controls: Multi Family Building: 24 hour 7 day a week facility

Leasing Office: Partial On occupancy sensor as required per code

Garage: On/ off controls not accessible to public as allowed by code

**E. ADDITIONAL REMARKS***This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.***G. TRACK LIGHTING***This Section Does Not Apply***H. INDOOR LIGHTING CONTROLS (Not Including PAFs)***This Section Does Not Apply***I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS***This Section Does Not Apply***J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES***This Section Does Not Apply***K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES***This Section Does Not Apply***L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE***This Section Does Not Apply***M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS***This Section Does Not Apply*

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE**

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Project Name: "Retrofit" Example (Job #: 15001)

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**N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY***This Section Does Not Apply***O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING***This Section Does Not Apply***P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS***This Section Does Not Apply***Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE***This Section Does Not Apply***R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)***This Section Does Not Apply***S. RATED POWER REDUCTION COMPLIANCE BY SPACE**

Table Instructions: Complete this table for indoor lighting alterations complying prescriptively with [§141.0\(b\)2I\(ii\)](#) or [§141.0\(b\)2J\(ii\)](#). Any control options having a \* will require a note in the Notes section of this table, otherwise the compliance status will say "DOES NOT COMPLY."

**Fixture Schedule** (Include all luminaires being removed or installed in the project)

01	02	03	04	05	06	07
Name or Item tag	Removed Luminaire Information			Installed Luminaire Information		
	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined
1	Compact Fluorescent	26	CEC Default	12W LED A19	12	Other <sup>1</sup>
2	Incandescent	100	CEC Default	12W LED A19	12	Other <sup>1</sup>
3	Linear Fluorescent	40	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
4	Compact Fluorescent	18	CEC Default	18W LED 8" Downlight	18	Other <sup>1</sup>
5	Compact Fluorescent	26	CEC Default	12W LED 6" Downlight	12	Other <sup>1</sup>
6	Incandescent	60	CEC Default	8W LED BR30	8	Other <sup>1</sup>
7	Linear Fluorescent	32	CEC Default	16W LED U-Bent Tube	16	Other <sup>1</sup>
8	Linear Fluorescent	32	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
9	Compact Fluorescent	13	CEC Default	11W LED Linear Retrofit	11	Other <sup>1</sup>

Table Continued

**Indoor Lighting**

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**CERTIFICATE OF COMPLIANCE**

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Project Name: "Retrofit" Example (Job #: 15001)

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Date Prepared:

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01	02	03	04	05	06	07
Name or Item tag	Removed Luminaire Information			Installed Luminaire Information		
	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined	Complete Luminaire Description	Watts per Luminaire <sup>1</sup>	How Wattage is Determined
10	Compact Fluorescent	23	CEC Default	12W LED A19	12	Other <sup>1</sup>
11	Compact Fluorescent	13	CEC Default	10W LED Surface Retrofit	10	Other <sup>1</sup>
12	Compact Fluorescent	23	CEC Default	12W LED 6" Downlight	12	Other <sup>1</sup>
13	Linear Fluorescent	32	CEC Default	12W LED 4' Tube	12	Other <sup>1</sup>
14	Linear Fluorescent	32	Other <sup>1</sup>	12W LED 4' Tube	12	Other <sup>1</sup>
15	Compact Fluorescent	13	Other <sup>1</sup>	9W LED GU24 A19	9	Other <sup>1</sup>
16	Compact Fluorescent	26	Other <sup>1</sup>	12W LED A19	12	Other <sup>1</sup>
17	Incandescent	100	CEC Default	12W LED A19	12	Other <sup>1</sup>

Building Level Mandatory Controls		Table S COMPLIANCE STATUS <sup>2</sup>
08	09	10
Building Shut-Off Controls <a href="#">§130.1(c)</a>	EMCS <a href="#">§130.0(e)</a> or Lighting Control System <a href="#">§110.9</a>	<b>COMPLIES</b>
Whole Building "Other" *	<input type="checkbox"/>	

**Space By Space Compliance** (Identify luminaires being removed or installed in each space within the permit scope)

11		12		13	
AREA DESCRIPTION		Space Type	Wattage Reduction Required per <a href="#">§141.0(b)2</a>	Area Level Mandatory Controls	
Common Areas		All Other	35%	Area Controls <a href="#">§130.1(a)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>
14		15		16	17
18		19		20	
Name or Item Tag	Removed Luminaire Information			Installed Luminaire Information	
	Number of Luminaires Being Removed	Total Wattage Being Removed		Number of Luminaires Being Installed	Total Wattage Being Installed
1	14	364		14	168
2	20	2,000		20	240
3	26	1,040		26	312
4	16	288		16	288
5	3	78		3	36

Table Continued

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: "Retrofit" Example (Job #: 15001)	Report Page:	Page 5 of 8
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Table Continued

6	5	300	5	40
7	4	128	4	64
8	4	128	4	48
9	18	234	18	198
10	1	23	1	12
			19	
<b>PERCENT REDUCTION FOR SPACE:</b>			<b>69.3</b>	<b>COMPLIES</b>

**Space By Space Compliance** (Identify luminaires being removed or installed in each space within the permit scope)

11		12		13	
<b>AREA DESCRIPTION</b>		Space Type	Wattage Reduction Required per <a href="#">§141.0(b)2</a>	Area Level Mandatory Controls	
Leasing Office		Office	50%	Area Controls <a href="#">§130.1(a)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>
				Manual ON/OFF	Other *
14	15	16		17	18
Name or Item Tag	Removed Luminaire Information			Installed Luminaire Information	
	Number of Luminaires Being Removed	Total Wattage Being Removed		Number of Luminaires Being Installed	Total Wattage Being Installed
11	4	52		4	40
12	26	598		26	312
13	9	288		9	108
			19		
<b>PERCENT REDUCTION FOR SPACE:</b>			<b>51</b>	<b>COMPLIES</b>	

**Space By Space Compliance** (Identify luminaires being removed or installed in each space within the permit scope)

11		12		13	
<b>AREA DESCRIPTION</b>		Space Type	Wattage Reduction Required per <a href="#">§141.0(b)2</a>	Area Level Mandatory Controls	
Garage		All Other	35%	Area Controls <a href="#">§130.1(a)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>
				Authorized Personnel *	Partial Off *
14	15	16		17	18
Name or Item Tag	Removed Luminaire Information			Installed Luminaire Information	
	Number of Luminaires Being Removed	Total Wattage Being Removed		Number of Luminaires Being Installed	Total Wattage Being Installed
14	133	4,256		133	1,596
			19		

Table Continued

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



CERTIFICATE OF COMPLIANCE		NRCC-LTI-E	
Project Name: "Retrofit" Example (Job #: 15001)		Report Page:	Page 6 of 8
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PERCENT REDUCTION FOR SPACE:		62.5		COMPLIES	
<b>Space By Space Compliance</b> (Identify luminaires being removed or installed in each space within the permit scope)					
11		12		13	
<b>AREA DESCRIPTION</b>		Space Type	Wattage Reduction Required per <a href="#">§141.0(b)2</a>	Area Level Mandatory Controls	
Maintenance		All Other	35%	Area Controls <a href="#">§130.1(a)</a>	Shut-Off Controls <a href="#">§130.1(c)</a>
				Manual ON/OFF	Occupancy Sensor
14	15	16		17	18
Name or Item Tag	Removed Luminaire Information			Installed Luminaire Information	
	Number of Luminaires Being Removed	Total Wattage Being Removed		Number of Luminaires Being Installed	Total Wattage Being Installed
15	12	156		12	108
16	26	676		26	312
17	3	300		3	36
				19	
PERCENT REDUCTION FOR SPACE:		59.7		COMPLIES	
*Notes: Controls with a * require a note in the space below explaining how compliance is achieved.				Add Space	Remove Last
Building Level Mandatory Controls		Multi Family Building: 24 hour 7 day a week facility			
Leasing Office		Partial On occupancy sensor as required per code			
Garage		On/ off controls not accessible to public as allowed by code			

<sup>1</sup>Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per [§130.0\(c\)](#)

<sup>2</sup>All spaces in the project must individually comply for the project to comply

**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



CERTIFICATE OF COMPLIANCE		NRCC-LTI-E	
Project Name: "Retrofit" Example (Job #: 15001)		Report Page:	Page 7 of 8
Project Address: Existing Site		Date Prepared:	8/31/2017

**T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

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YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	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.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	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.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	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.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

**U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

*Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>*

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>



**Indoor Lighting**

NRCC-LTI-E (Created 7/17)



## CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: "Retrofit" Example (Job #: 15001)

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Project Address: Existing Site

Date Prepared:

8/31/2017

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

Documentation Author Name: Gina Rodda

Documentation Author Signature:

Company: Gabel Energy

Signature Date:

9/5/2017

Address: 1234 First St

CEA/ HERS Certification Identification (if applicable):

City/State/Zip: Castro Valley CA 94546

Phone:

510-000-0000

**RESPONSIBLE PERSON'S DECLARATION 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 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: Michael Scalzo

Responsible Designer Signature:

**SIGN HERE**

Company: Scalzo Electric

Date Signed:

Address: 5678 Second St.

License:

C987654

City/State/Zip: LA, CA 94333

Phone:

510-000-0000