

Outdoor Lighting

NRCC-LTO-E (Created 11/19)

Nonresidential forms can be found here:
energycodeace.com/nonresidentialforms

Before starting the NRCC-LTO-E on a project, make sure to use a compatible PDF viewer, such as Adobe Acrobat Reader 2017.



CERTIFICATE OF COMPLIANCE

NRCC-LTO-E

This document is used to demonstrate compliance with requirements in [§110.9](#), [§130.0](#), [§130.2](#), [§140.7](#), and [§141.0\(b\)2L](#) for outdoor lighting scopes using the prescriptive path.

Project Name: NRCC-LTO-E New Outdoor Lighting	Report Page: Page 1 of 7
Project Address: 1234 Any Pl	Date Prepared: 9/11/2020

A. GENERAL INFORMATION

Selections in Tables A and B will trigger other applicable tables throughout this form.

Hover over these ? in the NRCC dynamic forms to get helpful tips when filling out the form.

01 Project Location (city)	San Jose	04 Total Illuminated Hardscape Area (ft ²)	12,600
02 Climate Zone	4		
03 Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):			
<input type="checkbox"/> LZ-0: Very Low - Undeveloped Parkland	<input type="checkbox"/> LZ-2: Moderate - Rural Areas	<input type="checkbox"/> LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
<input type="checkbox"/> LZ-1: Low - Developed Parkland	<input checked="" type="checkbox"/> LZ-3: Moderately High - Urban Areas		

B. PROJECT SCOPE

Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in [§140.7](#) or [§141.0\(b\)2L](#) for alterations.

My project consists of:

01	02
<input checked="" type="checkbox"/> New Lighting System	Must Comply with Allowances from §140.7 .
<input type="checkbox"/> Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? <input type="radio"/> Yes <input type="radio"/> No

If the project includes an outdoor lighting alteration, Table B will expand the correct Tables to fill out based on the requirements triggered by the project scope.

¹ FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100

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.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L							Compliance Results								
01	02	03	04	05	06	07	08	09							
General Hardscape Allowance §140.7(d)1	+	Per Application §140.7(d)2	+	Sales Frontage §140.7(d)2	+	Ornamental §140.7(d)2	+	Per Specific Area §140.7(d)2	OR	Existing Power §141.0(b)2L	=	Total Allowed (Watts)	≥	Total Actual (Watts)	07 Must be ≥ 08
(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)		(See Table N)				(See Table F)	
760	+	38	+		+		+		OR		=	798	≥	620	COMPLIES
Cutoff Compliance (See Table G for Details)											Not Applicable				
Controls Compliance (See Table H for Details)											COMPLIES with Exceptional Conditions				

Grey cells mean these Tables do not apply to the project.

Compliance at the project level must be verified in column 09 at the end of completing this form in order to comply with the Energy Code.

Outdoor Lighting

NRCC-LTO-E (Created 11/19)



CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: NRCC-LTO-E New Outdoor Lighting	Report Page:	Page 2 of 7
Project Address: 1234 Any Pl	Date Prepared:	9/11/2020

D. EXCEPTIONAL CONDITIONS ?

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

Table H. Outdoor Lighting Controls Permit Applicant Notes:

Exceptional Conditions will populate here based on selections made in the following tables.

Parking Lot: Luminaire is mounted > 24'

Total Hardscape Area in Table A does not match the areas entered in Table I. Please review for compliance.

E. ADDITIONAL REMARKS ?

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

Place any comments for the Building Official here.

There are code section links throughout the dynamic form for you to reference the code requirements being documented.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE ?

Table Instructions: For new or altered lighting systems demonstrating compliance with [§140.7](#) (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per [§141.0\(b\)2L](#) (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ^{1,2}	How Wattage is determined	Total number luminaires ²	Luminaire Status ³	Excluded per §140.7(a)	Design Watts	Cutoff Req. ≥ 6,200 initial lumen output §130.2(b) ⁴	Field Inspector	
									Pass	Fail
L1	LED Light Standard <input type="checkbox"/> Linear	250	Mfr. Spec ¹	2	New	<input type="checkbox"/>	500	NA: <6,200 lumens	<input type="checkbox"/>	<input type="checkbox"/>
L2	LED Surface Mount <input type="checkbox"/> Linear	30	Mfr. Spec ¹	4	New	<input type="checkbox"/>	120	NA: <6,200 lumens	<input type="checkbox"/>	<input type="checkbox"/>
Total Designed Watts:							620			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.

EX: Luminaire is lighting a statue; EXCEPTION 2 to [§130.2\(b\)](#).

Reset
Add Row
Remove Last

Continue to add lighting fixtures to document all that are in your project.

Outdoor Lighting

NRCC-LTO-E (Created 11/19)

CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE**

NRCC-LTO-E

Project Name: NRCC-LTO-E New Outdoor Lighting

Report Page:

Page 3 of 7

Project Address: 1234 Any Pl

Look out for footnotes as they may provide more clarity when filing out the form.

Date Prepared:

9/11/2020

¹ FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per [§130.0\(c\)](#)² For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 05 instead of number of luminaires.³ Select "New" for new luminaires in a new outdoor lighting project or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope⁴ Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output $\geq 6,200$ unless exempted by [§130.2\(b\)](#).**G. CUTOFF REQUIREMENTS (BUG)**

This Section Does Not Apply

Fixtures input in Table F will determine if Backlight, Uplight and Glare (BUG) requirements apply, and if so, Table G will expand.

H. OUTDOOR LIGHTING CONTROLS

Table Instructions: Complete this table demonstrating compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.

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. For each requirement in columns 02 through 04, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.

Mandatory Controls

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector	
				Pass	Fail
Parking Lot	Photocontrol	Yes	Exempt *	<input type="checkbox"/>	<input type="checkbox"/>
Building Entrance	Photocontrol	Yes	Yes	<input type="checkbox"/>	<input type="checkbox"/>

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

EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to [§130.2\(c\)](#).

Parking Lot	Luminaire is mounted > 24'
-------------	----------------------------

Reset

Add Row

Remove Last

I. LIGHTING POWER ALLOWANCE (per [§140.7](#))

Table Continued

Outdoor Lighting

NRCC-LTO-E (Created 11/19)



CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: NRCC-LTO-E New Outdoor Lighting	Report Page:	Page 4 of 7
Project Address: 1234 Any Pl	Date Prepared:	9/11/2020

Table Continued

Be sure to check any allowances that apply!
More tables will populate based on which allowances are selected.

<p><i>Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lost it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.</i></p>	<input checked="" type="checkbox"/>	General Hardscape Allowance	01 "Use it or lose it" Allowances (select all that apply)						
	<input checked="" type="checkbox"/>	Per Application	<input type="checkbox"/>	Sales Frontage	<input type="checkbox"/>	Ornamental	<input type="checkbox"/>	Per Specific Area	
	Table I (below)	Table J	Table K	Table L	Table M				
Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 2 & 3)									
02	03	04	05	06	07	08	09	10	
Area Description	Surface Type	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)	
		Illuminated Area (ft ²)	Allowed Density (W/ft ²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)		
Parking Lot	Asphalt	12,000	0.025	300	440	0.25	110	410	
							Reset	Add Row	Remove Last
Initial Wattage Allowance for Entire Site (Watts):								350	
Total General Hardscape Allowance (Watts):								760	

J. LIGHTING ALLOWANCE: PER APPLICATION

Table Instructions: Please complete this table for areas using the wattage allowance per application from Table-140.7-B.

01	02	03	04	05	06	07	08	09	10
Area Description	Application per Table 140.7-B ¹	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		# of Locations	Allowance per Location ² (Watts)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ³	# of Luminaires ³	Design Watts	
Building Entrance	Bldg Entrance/ Exit	2	19	38	L2	30	4	120	
Total Design Watts for this Area:								120	38
								Add Luminaire	Remove Last
Total Allowance (Watts) All Areas:									38
							Reset	Add Row	Remove Last

Table Continued

Outdoor Lighting

NRCC-LTO-E (Created 11/19)

CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE**

NRCC-LTO-E

Project Name: NRCC-LTO-E New Outdoor Lighting

Report Page:

Page 5 of 7

Project Address: 1234 Any Pl

Date Prepared:

9/11/2020

¹ FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.

² The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per [Table 140.7-B](#).

³ For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 08 instead of number of luminaires.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This Section Does Not Apply

L. LIGHTING ALLOWANCE: ORNAMENTAL

This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This Section Does Not Apply

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This Section Does Not Apply

O. 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 https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTO-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-LTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

Check to make sure the inputs made in this form have triggered the correct NRCI forms to be filled out.

Outdoor Lighting

NRCC-LTO-E (Created 11/19)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE		NRCC-LTO-E	
Project Name: NRCC-LTO-E New Outdoor Lighting	Report Page:	Page 6 of 7	
Project Address: 1234 Any Pl	Date Prepared:	9/11/2020	

P. 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-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	<input type="checkbox"/>	<input type="checkbox"/>

If controls have been added to 20 or less luminaires, the NRCA-LTO-02 can be moved to "No" and a note about controls being added to 20 or less luminaires should be put in Table E. as and explanation to the plans examiner.

Outdoor Lighting

NRCC-LTO-E (Created 11/19)

Print to PDF to then sign a static copy of the form and send to the client. Be sure to save a copy of the dynamic form if any edits need to be made.

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-LTO-E

Project Name: NRCC-LTO-E New Outdoor Lighting

Report Page:

Page 7 of 7

Project Address: 1234 Any Pl

Date Prepared:

9/11/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete

Documentation Author Name:

Documentation Author Signature:

Company:

Signature Date:

Address:

CEA/ HERS Certification Identification (if applicable):

City/State/Zip:

Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:

Responsible Designer Signature:

Company :

Date Signed:

Address:

License:

City/State/Zip:

Phone:

For more training on the NRCC forms, visit Energy Code Ace for Decoding Talks: energycodeace.com/decoding-talks**2019 Dynamic Form Introduction Series:** youtube.com/playlist?list=PLVH9EjkDaO5IMvxfVJg2oDwq2B3wljTQ1**Decoding NRCC:** Let's Talk 2019 Nonresidential Dynamic Forms Handout and Recording: energycodeace.com/content/training-ace/courseId=35705