

BUILDING ENERGY ANALYSIS REPORT

PROJECT:

Office Retail Remodel
123 Main Street
San Luis Obispo,

Project Designer:

Joe's Electric

San Luis Obispo, CA

Report Prepared by:

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(415) 897-6400

Job Number:

96002-MD

Date:

10/25/2016

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2016 Building Energy Efficiency Standards.

This program developed by EnergySoft Software – www.energysoft.com.

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CERTIFICATE OF COMPLIANCE		NRCC-LTI-01-E
Indoor Lighting		(Page 1 of 6)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

A. General Information						
Climate Zone:	Conditioned Floor Area: 10,250					
5	Unconditioned Floor Area: 1,200					
Building Type:	<input checked="" type="checkbox"/>	Nonresidential	<input type="checkbox"/>	High-Rise Residential	<input type="checkbox"/>	Hotel/Motel
<input type="checkbox"/> Schools	<input type="checkbox"/>	Relocatable Public Schools	<input checked="" type="checkbox"/>	Conditioned Spaces	<input checked="" type="checkbox"/>	Unconditioned Spaces
Phase of Construction:	<input type="checkbox"/>	New Construction	<input type="checkbox"/>	Addition	<input checked="" type="checkbox"/>	Alteration
Method of Compliance:	<input type="checkbox"/>	Complete Building	<input type="checkbox"/>	Area Category	<input checked="" type="checkbox"/>	Tailored
Project Address: 123 Main Street						

B. Lighting Compliance Documents (select yes for each document included)			
<i>For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.</i>			
YES	NO	COMP. DOC.	TITLE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-01-E	Certificate of Compliance. All Pages required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-02-E	Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-03-E	Indoor Lighting Power Allowance
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-04-E	Tailored Method Worksheets
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-05-E	Line Voltage Track Lighting Worksheets
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-06-E	Indoor Lighting Existing Conditions

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
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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			
01	Installed Lighting NRCC-LTI-01-E, Table H, page 5	Watts		Installed Lighting NRCC-LTI-01-E, Table H, page 5	Watts	
		+	11,390		+	640
02	Portable Only for Offices NRCC-LTI-01-E, Table G, page 4	+				
03	Minus Lighting Control Credits NRCC-LTI-02-E, page 2	-	63	Minus Lighting Control Credits NRCC-LTI-02-E, page 2	-	0
04	Adjusted Installed Lighting Power (row 1 plus row 2 minus row 3)	=	11,327	Adjusted Installed Lighting Power (row 1 minus row 3)	=	640
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 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		11,348	Allowed Lighting Power Unconditioned NRCC-LTI-03-E, page 1 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		1,080

D. Declaration of Required Certificates of Installation			
Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)			
YES	NO	Compliance Document/Title	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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"/> Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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"/> Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/> Field Inspector

CERTIFICATE OF COMPLIANCE		NRCC-LTI-01-E
Indoor Lighting		(Page 3 of 6)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

E. Declaration of Required Certificates of Acceptance			
Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)			
YES	NO	Compliance Document/Title	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-05-A – Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/> Field Inspector

<p><i>A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:</i></p> <p><input type="checkbox"/> CONDITIONED SPACE <input type="checkbox"/> UNCONDITIONED SPACE</p>
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F. Indoor Lighting Schedule and Field Inspection Energy Checklist
<p><input type="checkbox"/> The actual indoor lighting power listed on the next 2 pages includes all installed permanent and planned portable lighting systems.</p> <p><input type="checkbox"/> When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.</p> <p><input type="checkbox"/> 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</p> <p><input type="checkbox"/> Also include track lighting in schedule, and submit the track lighting compliance document (NRCC-LTI-05-E) when line-voltage track lighting is installed.</p>

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 4 of 6)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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

This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be documented on next page of this compliance document.

This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office

Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems.

Office Portable Luminaire Schedule	Office Installed Portable Luminaire W/ft ²						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 x G03)	Square feet of this office	Watts per square foot (G04 / G05)	If G06 ≤ 0.3, enter zero; if G06 > 0.3, (G06-0.3)	(G05 x G07)	Identify Office area in which these portable luminaires are installed	Pass	Fail
									<input type="checkbox"/>	<input type="checkbox"/>
									<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 ² per office:								Enter sum total of all pages into NRCC-LTI-01-E; Page 1		

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 5 of 6)
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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 ¹		
01	02	03	04		05	06	07		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	Pass	Fail
			CEC Default from NA8	According to §130.0(c)					
C-1	2 Lamp 13w Compact Triple 4 Pin Elec	25.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	100	Lobby, Main Entry	<input type="checkbox"/>	<input type="checkbox"/>
C-2	50w Low Voltage Halogen	54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	432	Retail Sales, Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
CF-1	2 Lamp 13w Compact Quad 2 Pin	36.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	144	Lobby, Main Entry	<input type="checkbox"/>	<input type="checkbox"/>
F-1	2 Lamp 4 ft T8 Energy Savings Elec	54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25	1,350	Retail Sales, Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
F-1	2 Lamp 4 ft T8 Energy Savings Elec	54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9	486	Lobby, Main Entry	<input type="checkbox"/>	<input type="checkbox"/>
F-1A	1 Lamp 4 ft T8 Energy Savings Elec	29.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12	348	Lobby, Main Entry	<input type="checkbox"/>	<input type="checkbox"/>
F-2	2 Lamp 4 ft T8 XPS Lamp/PSX Ballast ElecR	48.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5	240	Retail Sales, Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
G-1	45w per ft Track Light	45.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	270	Retail Sales, Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
	Standard Allowance: 7000 sqft at 1.000 watt/s		<input type="checkbox"/>	<input type="checkbox"/>		7,000	Exercise Room	<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						10,370	Enter sum total of all pages into NRCC-LTI-01-E; Page 2		

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 5 of 6)
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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 ¹		
01	02	03	04		05	06	07		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	Pass	Fail
			CEC Default from NA8	According to §130.0(c)					
T-1	45w per ft Track Light	45.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	180	Retail Sales, Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
W-1	60w Surface Mount Incandescent	60.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14	840	Retail Sales, Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						1,020	Enter sum total of all pages into NRCC-LTI-01-E; Page 2		

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 5 of 6)
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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 ¹		
01	02	03	04		05	06	07	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	Pass	Fail
			CEC Default from NA8	According to §130.0(c)					
F-12	LED	40.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16	640	Industrial Work, Precision	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						640	Enter sum total of all pages into NRCC-LTI-01-E; Page 2		

CERTIFICATE OF COMPLIANCE		NRCC-LTI-01-E
Indoor Lighting		(Page 6 of 6)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Martyn C. Dodd	Documentation Author Signature: 
Company: EnergySoft, LLC	Signature Date: 10/25/2016
Address: 1025 5th St. Suite A	CEA Certification Identification (if applicable):
City/State/Zip: Novato, CA 94945	Phone: (415) 897-6400
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> 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: Joe King	Responsible Designer Signature:
Company : Joe's Electric	Date Signed:
Address: 123 Bada Bing St	License:
City/State/Zip: Oakley, CA 92003	Phone: (925) 222-1212

INDOOR LIGHTING – LIGHTING CONTROLS

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



CERTIFICATE OF COMPLIANCE		NRCC-LTI-02-E
Indoor Lighting - Lighting Controls		(Page 1 of 3)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)		
YES	NO	Control Requirements
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b).
<input type="checkbox"/>	<input type="checkbox"/>	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
<input type="checkbox"/>	<input type="checkbox"/>	All luminaires shall be functionally controlled with manually switched ON and OFF lighting controls in accordance with Section 130.1(a).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)4.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4.(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

INDOOR LIGHTING – LIGHTING CONTROLS

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



CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 2 of 3)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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															
Lighting Control Schedule			Standards Complying With ¹ (✓ all that apply, or enter 'E' if Exempted)							PAF Credit Calculation ²			✓ if Acceptance Test Required	Field Inspector	
										Watts of Controlled Lighting	PAF	Control Credit (K x L)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc...)	# of Units	§130.1(a)	§130.0(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(a)2	§140.6(d)					Pass	Fail
Office Lobby	Daylight - Dimming/Off		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	486	0.10	49	✓	<input type="checkbox"/>	<input type="checkbox"/>
Lobby	Daylight - Dimming/Off		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	144	0.10	14	✓	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
Control Credit PAGE TOTAL (Sum of Column 13):												63			
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):												63			
												Enter Control Credit total into NRCC-LTI-01-E; Page 1.			
<p>1. §130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive; §140.6(d) = Additional lighting controls installed to earn a PAF; §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.</p> <p>2. Check Table 140.6-A for correct Factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.</p>															

INDOOR LIGHTING – LIGHTING CONTROLS

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

CERTIFICATE OF COMPLIANCE		NRCC-LTI-02-E
Indoor Lighting - Lighting Controls		(Page 2 of 3)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

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

Lighting Control Schedule			Standards Complying With ¹ (✓ all that apply, or enter 'E' if Exempted)							PAF Credit Calculation ²			✓ if Acceptance Test Required	Field Inspector	
										Watts of Controlled Lighting	PAF	Control Credit (K x L)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc...)	# of Units	§130.1(a)	§130.0(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(a)2	§140.6(d)					Pass	Fail
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>
Control Credit PAGE TOTAL (Sum of Column 13):												0			
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):												0			
												Enter Control Credit total into NRCC-LTI-01-E; Page 1.			

1. §130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive; §140.6(d) = Additional lighting controls installed to earn a PAF; §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.
 2. Check Table 140.6-A for correct Factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

INDOOR LIGHTING – LIGHTING CONTROLS

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

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE		NRCC-LTI-02-E
Indoor Lighting - Lighting Controls		(Page 3 of 3)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Martyn C. Dodd	Documentation Author Signature: 
Company: EnergySoft, LLC	Signature Date: 10/25/2016
Address: 1025 5th St. Suite A	CEA Certification Identification (if applicable):
City/State/Zip: Novato, CA 94945	Phone: (415) 897-6400
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 	
Responsible Designer Name: Joe King	Responsible Designer Signature:
Company : Joe's Electric	Date Signed:
Address: 123 Bada Bing St	License:
City/State/Zip: Oakley, CA 92003	Phone: (925) 222-1212

INDOOR LIGHTING POWER ALLOWANCE

CEC-NRCC-LTI-03-E (Revised 04/16)



CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	
(Page 1 of 4)	
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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

CONDITIONED spaces UNCONDITIONED spaces

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES

- If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
- If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Method for compliance, use only the total in column (b) as the total allowed building watts

	(a)		(b)
01 Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)			
02 Area Category Method Allowed Watts. Documented in section C-1 of NRCC-LTI-03-E (below on this page)			1,450
03 Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E			9,898
TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LTI-01, Page 2, Row 1			11,348
<input checked="" type="checkbox"/> Check here if building contains both conditioned and unconditioned areas.			

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE

01	02		03		04
TYPE OF BUILDING (From §140.6 Table 140.6-B)	WATTS PER ft ²	X	COMPLETE BLDG. AREA	=	ALLOWED WATTS
	Total Area:				
Total Watts. Enter Total Watts into section A, row 1 (Above on this page)					

C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES

	Watts
Total from section C-2.	950
Total from section C-3.	500
Total Watts. Enter Total Watts into section A, row 2 (Above on this page).	1,450
For Alterations Only – Reduced lighting power option (Total Allowed Watts x 0.85). Enter this value into section A, row 2 if using this option.	

INDOOR LIGHTING POWER ALLOWANCE

CEC-NRCC-LTI-03-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	
(Page 1 of 4)	
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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

CONDITIONED spaces UNCONDITIONED spaces

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES

- If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
- If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Method for compliance, use only the total in column (b) as the total allowed building watts

	(a)		(b)
01 Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)			
02 Area Category Method Allowed Watts. Documented in section C-1 of NRCC-LTI-03-E (below on this page)			0
03 Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E			1,080
TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LTI-01, Page 2, Row 1			1,080
<input checked="" type="checkbox"/> Check here if building contains both conditioned and unconditioned areas.			

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE

01	02		03		04
TYPE OF BUILDING (From §140.6 Table 140.6-B)	WATTS PER ft ²	X	COMPLETE BLDG. AREA	=	ALLOWED WATTS
	Total Area:				
Total Watts. Enter Total Watts into section A, row 1 (Above on this page)					

C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES

	Watts
Total from section C-2.	0
Total from section C-3.	0
Total Watts. Enter Total Watts into section A, row 2 (Above on this page).	0
For Alterations Only – Reduced lighting power option (Total Allowed Watts x 0.85). Enter this value into section A, row 2 if using this option.	

INDOOR LIGHTING POWER ALLOWANCE

CEC-NRCC-LTI-03-E (Revised 04/16)

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	(Page 2 of 4)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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

CONDITIONED spaces UNCONDITIONED spaces

C -2 AREA CATEGORY METHOD GENERAL LIGHTING POWER ALLOWANCE

Do not include portable lighting for offices. Portable lighting for offices shall be documented only in Section G of NRCC-LTI-01-E.

Separately list lighting for each primary function area as defined in §100.1 of the Standards.

01		02		03		04
AREA CATEGORY (From §140.6 Table 140.6-C)		WATTS PER ft ²	X	AREA (ft ²)	=	ALLOWED WATTS
Location in Building	Primary Function Area per Table 140.6-C					
Office Lobby	Lobby, Main Entry	0.95		1,000		950
TOTALS				1,000		
Enter sum total Area Category allowed watts into section C-1 of NRCC-LTI-03-E (this compliance document)						950
						WATTS

INDOOR LIGHTING POWER ALLOWANCE

CEC-NRCC-LTI-03-E (Revised 04/16)



CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	
(Page 2 of 4)	
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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

CONDITIONED spaces
 UNCONDITIONED spaces

C -2 AREA CATEGORY METHOD GENERAL LIGHTING POWER ALLOWANCE

Do not include portable lighting for offices. Portable lighting for offices shall be documented only in Section G of NRCC-LTI-01-E.

Separately list lighting for each primary function area as defined in §100.1 of the Standards.

01		02	X	03	=	04
AREA CATEGORY (From §140.6 Table 140.6-C)						
Location in Building	Primary Function Area per Table 140.6-C					
TOTALS				0		
Enter sum total Area Category allowed watts into section C-1 of NRCC-LTI-03-E (this compliance document)						0
						WATTS

INDOOR LIGHTING POWER ALLOWANCE

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	
(Page 3 of 4)	
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

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

CONDITIONED spaces
 UNCONDITIONED spaces

C-3 AREA CATEGORY METHOD ADDITIONAL LIGHTING WATTAGE ALLOWANCE (from Table 140.6-C Footnotes)						
01	02	03 ²	04	05	06	07
Primary Function	Sq Ft or Linear ft ¹	Additional Watts Allowed	Wattage Allowance (02 x 03)	Description(s) and Quantity of Special Luminaire Types in each Primary Function Area	Total Design Watts ³	ALLOWED WATTS Smaller of 04 or 06
TOTALS – Enter into TOTAL AREA CATEGORY METHOD ADDITIONAL ALLOWANCES – Section C-1 . 0						
1. Use linear feet only for additional allowance for white board or chalk board. All other additional Area Category allowances shall use watts per square foot. 2 . Additional watts are available only when allowed according to the footnotes on bottom of Table 140.6-C, which include: Specialized task work; Ornamental lighting; Precision commercial and industrial work; Per linear foot of white board or chalk board; Accent, display and feature lighting; and Videoconferencing studio lighting.. 3. Luminaire classification and wattage shall be determined in accordance with §130.0(c) of the Standards.						

INDOOR LIGHTING POWER ALLOWANCE

CEC-NRCC-LTI-03-E (Revised 04/16)



CERTIFICATE OF COMPLIANCE		NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance		(Page 4 of 4)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Martyn C. Dodd	Documentation Author Signature:
Company: EnergySoft, LLC	Signature Date: 10/25/2016
Address: 1025 5th St. Suite A	CEA Certification Identification (if applicable):
City/State/Zip: Novato, CA 94945	Phone: (415) 897-6400
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> 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: Joe King	Responsible Designer Signature:
Company : Joe's Electric	Date Signed:
Address: 123 Bada Bing St	License:
City/State/Zip: Oakley, CA 92003	Phone: (925) 222-1212



CERTIFICATE OF COMPLIANCE	NRCC-LTI-04-E
Indoor Lighting – Tailored Method	(Page 1 of 7)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

Complete separate documents for Conditioned and Unconditioned Spaces.
 This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

A. TAILORED METHOD LIGHTING POWER ALLOWANCE SUMMARY							
01 General lighting power (Building Total from Section B of NRCC-LTI-04-E)						01	1,780
02 General lighting power special function areas (Building Total from Section C of NRCC-LTI-04-E)						02	6,300
03 Additional “use it or lose it” lighting power (Watts listed in each of these cells shall be identical to total allowed watts determined in Section D of NRCC-LTI-04-E.							
Wall Display from Section D-1		Combined Floor Display and Task Lighting from Section D-2		Combined Ornamental and Special Effects Lighting from Section D-3		Very Valuable Merchandise from Section D-4	
646	+	230	+	270	+	672	=
						03	1,818
04 Total Allowed Watts using Tailored Method (add lines 1, 2 and 3)						04	9,898

B. TAILORED METHOD ALLOWED GENERAL LIGHTING POWER FROM TABLE 140.6-D						
01	02	03	04	05	06	07
ROOM NUMBER	PRIMARY FUNCTION AREA	ILLUMINANCE VALUE (LUX)	ROOM CAVITY RATIO	ALLOWED LPD	FLOOR AREA	ALLOWED WATTS (B05 x B06)
	Lobby, Main Entry	200	3.85	0.88	250	220
	Retail Sales, Wholesale	400	1.80	0.78	2,000	1,560
PAGE TOTAL						1,780
If multiple pages are used, enter building total here						1,780

C. TAILORED METHOD ALLOWED GENERAL LIGHTING POWER FOR SPECIAL FUNCTION AREAS ACCORDING TO § 140.6(c)3H						
<input type="checkbox"/> This section shall be used to determine allowed general lighting power ONLY for the following primary function areas: Exercise Center, Gymnasium; Medical and Clinical Care; Police Stations and Fire Stations; Public rest areas along state and federal roadways; other primary function areas that are listed in neither Table 140.6-C nor Table 140.6-D						
01	02	03	04	05	06	07
ROOM NUMBER	PRIMARY FUNCTION AREA	ILLUMINANCE VALUE (LUX)	ROOM CAVITY RATIO	ALLOWED LPD	FLOOR AREA	ALLOWED WATTS (C05 x C06)
	Exercise Room	500	1.88	0.90	7,000	6,300
PAGE TOTAL						6,300
If multiple pages are used, enter building total here						6,300



CERTIFICATE OF COMPLIANCE	NRCC-LTI-04-E
Indoor Lighting – Tailored Method	(Page 1 of 7)
Project Name: Office Retail Remodel	Date Prepared: 10/25/2016

Complete separate documents for Conditioned and Unconditioned Spaces.
 This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

A. TAILORED METHOD LIGHTING POWER ALLOWANCE SUMMARY									
01 General lighting power (Building Total from Section B of NRCC-LTI-04-E)							01	0	
02 General lighting power special function areas (Building Total from Section C of NRCC-LTI-04-E)							02	1,080	
03 Additional “use it or lose it” lighting power (Watts listed in each of these cells shall be identical to total allowed watts determined in Section D of NRCC-LTI-04-E.									
Wall Display from Section D-1	+	Combined Floor Display and Task Lighting from Section D-2	+	Combined Ornamental and Special Effects Lighting from Section D-3	+	Very Valuable Merchandise from Section D-4	=		
0		0		0		0	=	03	0
04 Total Allowed Watts using Tailored Method (add lines 1, 2 and 3)							04	1,080	

B. TAILORED METHOD ALLOWED GENERAL LIGHTING POWER FROM TABLE 140.6-D						
01	02	03	04	05	06	07
ROOM NUMBER	PRIMARY FUNCTION AREA	ILLUMINANCE VALUE (LUX)	ROOM CAVITY RATIO	ALLOWED LPD	FLOOR AREA	ALLOWED WATTS (B05 x B06)
PAGE TOTAL						0
If multiple pages are used, enter building total here						0

C. TAILORED METHOD ALLOWED GENERAL LIGHTING POWER FOR SPECIAL FUNCTION AREAS ACCORDING TO § 140.6(c)3H						
<input type="checkbox"/> This section shall be used to determine allowed general lighting power ONLY for the following primary function areas: Exercise Center, Gymnasium; Medical and Clinical Care; Police Stations and Fire Stations; Public rest areas along state and federal roadways; other primary function areas that are listed in neither Table 140.6-C nor Table 140.6-D						
01	02	03	04	05	06	07
ROOM NUMBER	PRIMARY FUNCTION AREA	ILLUMINANCE VALUE (LUX)	ROOM CAVITY RATIO	ALLOWED LPD	FLOOR AREA	ALLOWED WATTS (C05 x C06)
	Industrial Work, Precision	500	1.83	0.90	1,200	1,080
PAGE TOTAL						1,080
If multiple pages are used, enter building total here						1,080



CERTIFICATE OF COMPLIANCE

NRCC-LTI-04-E

Indoor Lighting – Tailored Method

(Page 2 of 7)

Project Name: Office Retail Remodel

Date Prepared: 10/25/2016

Complete separate documents for Conditioned and Unconditioned Spaces.

This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

D. TAILORED METHOD ADDITIONAL “USE IT OR LOSE IT” LIGHTING POWER ALLOWANCES

- Use this section to document and calculate additional lighting power for wall display, floor display, task, ornamental, special effects, or very valuable display case lighting.
- The additional lighting power allowance shall be the smaller of the allowed lighting power or the actual lighting power used.
- These additional lighting power allowances shall not be available when using §140.6(c)3H to determine the general lighting power allowance, when using the Complete Building Method, or for any areas using the Area Category Method.

D-1. ADDITIONAL ALLOWED LIGHTING POWER FOR WALL DISPLAY LIGHTING

- Floor displays shall not qualify for the wall display lighting power allowance.
- Qualifying wall lighting complies with the applicable requirements in §140.6(c)3I.

01	02	03	04	05	06	07	08	09	10	11
Primary Function Area	ALLOTTED WATTS			DESIGN WATTS						Allowed Watts (smaller of 04 or 10)
	Wall Display Length in (Linear Feet)	Wall Display Power (W/lin foot)	Allotted Watts (02 x 03)	Luminaire Code	Mounting Height	Mounting Height Factor	Watts per Luminaire	# Luminaires	Design Watts (07 x 08 x 09)	
Sales Area	50	14.00	700		< 12 feet	1.00				
					12 feet to	0.87				
				W-1	≥ 16 feet	0.77	60.0	14	646	
				Total for this Primary Function Area:						
					< 12 feet	1.00				
					12 feet to	0.87				
					≥ 16 feet	0.77				
				Total for this Primary Function Area:						
					< 12 feet	1.00				
					12 feet to	0.87				
					≥ 16 feet	0.77				
				Total for this Primary Function Area:						
					< 12 feet	1.00				
					12 feet to	0.87				
					≥ 16 feet	0.77				
				Total for this Primary Function Area:						
Sum total power for wall display lighting for all function areas:									646	



CERTIFICATE OF COMPLIANCE

NRCC-LTI-04-E

Indoor Lighting – Tailored Method

(Page 2 of 7)

Project Name: Office Retail Remodel

Date Prepared: 10/25/2016

Complete separate documents for Conditioned and Unconditioned Spaces.

This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

D. TAILORED METHOD ADDITIONAL “USE IT OR LOSE IT” LIGHTING POWER ALLOWANCES

- Use this section to document and calculate additional lighting power for wall display, floor display, task, ornamental, special effects, or very valuable display case lighting.
- The additional lighting power allowance shall be the smaller of the allowed lighting power or the actual lighting power used.
- These additional lighting power allowances shall not be available when using §140.6(c)3H to determine the general lighting power allowance, when using the Complete Building Method, or for any areas using the Area Category Method.

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01	02	03	04	05	06	07	08	09	10	11	
Primary Function Area	ALLOTTED WATTS			DESIGN WATTS						Allowed Watts (smaller of 04 or 10)	
	Wall Display Length in (Linear Feet)	Wall Display Power (W/lin foot)	Allotted Watts (02 x 03)	Luminaire Code	Mounting Height	Mounting Height Factor	Watts per Luminaire	# Luminaires	Design Watts (07 x 08 x 09)		
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet	0.77					
				Total for this Primary Function Area:							
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet	0.77					
				Total for this Primary Function Area:							
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet	0.77					
				Total for this Primary Function Area:							
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet	0.77					
				Total for this Primary Function Area:							
Sum total power for wall display lighting for all function areas:										0	



CERTIFICATE OF COMPLIANCE

NRCC-LTI-04-E

Indoor Lighting – Tailored Method

(Page 3 of 7)

Project Name: Office Retail Remodel

Date Prepared: 10/25/2016

Complete separate documents for Conditioned and Unconditioned Spaces.

This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

D-2. ADDITIONAL ALLOWED LIGHTING POWER FOR COMBINED FLOOR DISPLAY AND TASK LIGHTING

- Displays that are installed against a wall shall not qualify for the floor display lighting power allowances.
- Lighting internal to display cases shall be counted EITHER as floor display lighting in accordance with §140.6(c)3J; or as very valuable display case lighting in accordance with §140.6(c)3Liii and iv.
- Additional allowed power for floor display lighting, and additional allowed power for task lighting, may be used by qualifying floor display lighting systems, qualifying task lighting systems, or a combination of both. For floor areas qualifying for both floor display and task lighting power allowances, the additional allowed power shall be used only once for the same floor area, so that the allowance shall not be additive.
- Qualifying floor display lighting complies with the applicable provision in §140.6(c)3J(v and vi).
- Additional allowed power for a combination of floor display lighting and task lighting shall be available only for (I) floors having floor displays; or (II) floors not having floor displays but having tasks having illuminance recommendations that appear in the Tenth Edition of the IES Lighting Handbook and that are higher than the general lighting level in column 2 of TABLE 140.6-D. The square footage of floor display or the square footage of task areas shall be determined in accordance with §140.6(c)3C and D, except that any floor area designed to not have floor displays or tasks, such as floor areas designated as a path of egress, shall not be included for the floor display allowance.

01	02	03	04	05	06	07	08	09	10	11	
Primary Function Area	ALLOTTED WATTS			DESIGN WATTS						Allowed Watts (smaller of 04 or 10)	
	Square Feet of Area	Lighting Power (W/ft ²)	Allotted Watts (02 x 03)	Luminaire Code	Mounting Height	Mounting Height Factor	Watts per Luminaire	# Luminaires	Design Watts (07 x 08 x 09)		
Lobby	250	0.20	50		< 12 feet	1.00				77	50
					12 feet to	0.87					
				C-1	≥ 16 feet	0.77	25.0	4			
				Total for this Primary Function Area:							
Sales Area	2,000	1.00	2,000	T-1	< 12 feet	1.00	45.0	4	180	180	
					12 feet to	0.87					
					≥ 16 feet or higher	0.77					
				Total for this Primary Function Area:							
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet or higher	0.77					
Total for this Primary Function Area:											
Sum total power for combined floor display and task lighting:										230	



CERTIFICATE OF COMPLIANCE

NRCC-LTI-04-E

Indoor Lighting – Tailored Method

(Page 3 of 7)

Project Name: Office Retail Remodel

Date Prepared: 10/25/2016

Complete separate documents for Conditioned and Unconditioned Spaces.

This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

D-2. ADDITIONAL ALLOWED LIGHTING POWER FOR COMBINED FLOOR DISPLAY AND TASK LIGHTING

- Displays that are installed against a wall shall not qualify for the floor display lighting power allowances.
- Lighting internal to display cases shall be counted EITHER as floor display lighting in accordance with §140.6(c)3J; or as very valuable display case lighting in accordance with §140.6(c)3Liii and iv.
- Additional allowed power for floor display lighting, and additional allowed power for task lighting, may be used by qualifying floor display lighting systems, qualifying task lighting systems, or a combination of both. For floor areas qualifying for both floor display and task lighting power allowances, the additional allowed power shall be used only once for the same floor area, so that the allowance shall not be additive.
- Qualifying floor display lighting complies with the applicable provision in §140.6(c)3J(v and vi).
- Additional allowed power for a combination of floor display lighting and task lighting shall be available only for (I) floors having floor displays; or (II) floors not having floor displays but having tasks having illuminance recommendations that appear in the Tenth Edition of the IES Lighting Handbook and that are higher than the general lighting level in column 2 of TABLE 140.6-D. The square footage of floor display or the square footage of task areas shall be determined in accordance with §140.6(c)3C and D, except that any floor area designed to not have floor displays or tasks, such as floor areas designated as a path of egress, shall not be included for the floor display allowance.

01	02	03	04	05	06	07	08	09	10	11	
Primary Function Area	ALLOTTED WATTS			DESIGN WATTS						Allowed Watts (smaller of 04 or 10)	
	Square Feet of Area	Lighting Power (W/ft ²)	Allotted Watts (02 x 03)	Luminaire Code	Mounting Height	Mounting Height Factor	Watts per Luminaire	# Luminaires	Design Watts (07 x 08 x 09)		
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet	0.77					
					Total for this Primary Function Area:						
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet or higher	0.77					
					Total for this Primary Function Area:						
					< 12 feet	1.00					
					12 feet to	0.87					
					≥ 16 feet or higher	0.77					
					Total for this Primary Function Area:						
Sum total power for combined floor display and task lighting:										0	



CERTIFICATE OF COMPLIANCE

NRCC-LTI-04-E

Indoor Lighting – Tailored Method

(Page 4 of 7)

Project Name: **Office Retail Remodel**

Date Prepared: **10/25/2016**

Complete separate documents for Conditioned and Unconditioned Spaces.

This page is used to document: CONDITIONED SPACES UNCONDITIONED SPACES

D-3. ADDITIONAL ALLOWED LIGHTING POWER FOR COMBINED ORNAMENTAL AND SPECIAL EFFECTS

- Qualifying ornamental lighting includes luminaires such as chandeliers, sconces, lanterns, neon and cold cathode, light emitting diodes, theatrical projectors, moving lights, and light color panels when any of those lights are used in a decorative manner that does not serve as display lighting or general lighting.
- Special effects lighting is defined as lighting installed to give off luminance instead of providing illuminance.
- There is no mounting height multiplier for ornamental or special effects lighting
- Additional allowed power for ornamental and special effects lighting may be used only for qualifying lighting systems. For floor areas qualifying for both ornamental and special effects lighting power allowances, the additional allowed power shall be used only once for the same floor area, so that the allowance shall not be additive.

01	02	03	04	05	06	07	08	09
ALLOTTED WATTS				DESIGN WATTS				
Primary Function Area	Square Feet of Area	Lighting Power (W/ft ²)	Allotted Watts (02 x 03)	Luminaire Code or Description (rows below accommodate 3 layers per function area)	Watts per Luminaire	# Luminaires	Design Watts (06 X 07)	Allowed Watts (smaller of 04 or Total for 08)
Sales Area	2,000	0.50	1,000	1 G-1	45.0	6	270	
				2				
				3				
				Total ornamental/special effects lighting for this primary function area:				
				1				
				2				
				3				
				Total ornamental/special effects lighting for this primary function area:				
				1				
				2				
				3				
				Total ornamental/special effects lighting for this primary function area:				
				1				
				2				
				3				
				Total ornamental/special effects lighting for this primary function area:				
Sum total allowed watts for ornamental and special effects lighting:								270

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Complete separate documents for Conditioned and Unconditioned Spaces.

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D-3. ADDITIONAL ALLOWED LIGHTING POWER FOR COMBINED ORNAMENTAL AND SPECIAL EFFECTS

- Qualifying ornamental lighting includes luminaires such as chandeliers, sconces, lanterns, neon and cold cathode, light emitting diodes, theatrical projectors, moving lights, and light color panels when any of those lights are used in a decorative manner that does not serve as display lighting or general lighting.
- Special effects lighting is defined as lighting installed to give off luminance instead of providing illuminance.
- There is no mounting height multiplier for ornamental or special effects lighting
- Additional allowed power for ornamental and special effects lighting may be used only for qualifying lighting systems. For floor areas qualifying for both ornamental and special effects lighting power allowances, the additional allowed power shall be used only once for the same floor area, so that the allowance shall not be additive.

01	02	03	04	05	06	07	08	09	
Primary Function Area	ALLOTTED WATTS			DESIGN WATTS				Allowed Watts (smaller of 04 or Total for 08)	
	Square Feet of Area	Lighting Power (W/ft ²)	Allotted Watts (02 x 03)	Luminaire Code or Description (rows below accommodate 3 layers per function area)	Watts per Luminaire	# Luminaires	Design Watts (06 X 07)		
				1					
				2					
				3					
				Total ornamental/special effects lighting for this primary function area:					
				1					
				2					
				3					
				Total ornamental/special effects lighting for this primary function area:					
				1					
				2					
				3					
				Total ornamental/special effects lighting for this primary function area:					
				1					
				2					
				3					
				Total ornamental/special effects lighting for this primary function area:					
								Sum total allowed watts for ornamental and special effects lighting:	0



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D-4. ADDITIONAL ALLOWED LIGHTING POWER FOR VERY VALUABLE DISPLAY CASE LIGHTING

- Lighting internal to display cases shall be counted EITHER as floor display lighting in accordance with §140.6(c)3J; or if qualifying, as very valuable display case lighting in accordance with §140.6(c)3Liii and iv.
- Case lighting is lighting of small art objects, artifacts, or valuable collections which involves customer inspection of very fine detail from outside of a glass enclosed display case.
- To qualify for this allowance, case shall contain jewelry, coins, fine china, fine crystal, precious stones, silver, small art objects or artifacts, and/or valuable collections the display of which involves customer inspection of very fine detail from outside of a locked case.
- This allowance is available only for display cases in retail merchandise sales, museum, and religious worship areas.
- Any floor area designed to not have very valuable display case lighting shall not be included for this allowance.
- A mounting height multiplier is not available.

01	02	03	04	05	06	07	08	09	10
Primary Function Area	Description of Display Case	WATTS PER SQUARE FOOT OF QUALIFYING FLOOR AREA			WATTS PER SQUARE FOOT OF QUALIFYING DISPLAY CASE AREA			ACTUAL INSTALLED WATTS	ALLOWED WATTS (SMALLEST OF 05, 08, or 09)
		Square Feet of Floor Area	Allowed W/ft ²	Allotted Watts (03 x 04)	Square Feet of Display Case	Allowed (W/ft ²)	Allotted Watts (06 x 07)		
Retail Sales, Wholesal	Merchandise Cases	2,000	0.8	1,600	100	12.0	1,200	672	672
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
Sum total allowed watts for very valuable display case lighting:									672



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D-4. ADDITIONAL ALLOWED LIGHTING POWER FOR VERY VALUABLE DISPLAY CASE LIGHTING

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- Any floor area designed to not have very valuable display case lighting shall not be included for this allowance.
- A mounting height multiplier is not available.

01	02	03	04	05	06	07	08	09	10
Primary Function Area	Description of Display Case	WATTS PER SQUARE FOOT OF QUALIFYING FLOOR AREA			WATTS PER SQUARE FOOT OF QUALIFYING DISPLAY CASE AREA			ACTUAL INSTALLED WATTS	ALLOWED WATTS (SMALLEST OF 05, 08, or 09)
		Square Feet of Floor Area	Allowed W/ft ²	Allotted Watts (03 x 04)	Square Feet of Display Case	Allowed (W/ft ²)	Allotted Watts (06 x 07)		
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
			0.8			12.0			
Sum total allowed watts for very valuable display case lighting:									0



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ROOM CAVITY RATIO (RCR) WORKSHEET

RECTANGULAR SPACES


01	02	03	04	05	06
Room Number	Task/Activity Description	Room Length (L) (ft)	Room Width (W) (ft)	Room Cavity Height (H) (ft)	RCR 5 x H x (L+W) / (L x W)
Lobby	Lobby, Main Entry	10.0	25.0	5.5	3.85
Sales Area	Retail Sales, Wholesale	50.0	40.0	8.0	1.80
Gym	Exercise Room	70.0	100.0	15.5	1.88
Shop	Industrial Work, Precision	60.0	20.0	5.5	1.83

NON-RECTANGULAR SPACES

01	02	03	04	05	06
Room Number	Task/Activity Description	Room Area (A) (ft ²)	Room Perimeter (P) (ft)	Room Cavity Height (H) (ft)	RCR 2.5 x H x P / A



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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Martyn C. Dodd	Documentation Author Signature: 
Company: EnergySoft, LLC	Signature Date: 10/25/2016
Address: 1025 5th St. Suite A	CEA Certification Identification (if applicable):
City/State/Zip: Novato, CA 94945	Phone: (415) 897-6400
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 	
Responsible Designer Name: Joe King	Responsible Designer Signature:
Company: Joe's Electric	Date Signed:
Address: 123 Bada Bing St	License:
City/State/Zip: Oakley, CA 92003	Phone: (925) 222-1212