



SOLAR REFLECTANCE INDEX CALCULATION WORKSHEET

CALIFORNIA ENERGY COMMISSION

CEC-CF1R-ENV-04-E

CERTIFICATE OF COMPLIANCE

Field Name	Data Entry	Field Name	Data Entry
Project Name:		Enforcement Agency:	
Dwelling Address:		Permit Number:	
City and Zip Code:		Permit Application Date:	

A. Product Information

Field	Field Name	Data Entry
01	Tag/ID	
02	Cool Roof Rating Council (CRRC) Product ID Number	
03	Manufacturer	
04	Brand	
05	Model	
06	Product Type	
07	Roof Pitch	

B. SRI Calculations

Field	Field Name	Data Entry
01	Is Aged Reflectance Listed with Cool Roof Rating Council (CRRC)?	Yes No
02	Cool Roof Rating Council (CRRC) Listed Aged Solar Reflectance	
03	Initial Solar Reflectance	
04	Calculated Aged Solar Reflectance	
05	Thermal Emittance	

C. Results

Field	Field Name	Data Entry
01	Solar Reflectance Index	



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Documentation Author's Declaration Statement <p>1. I certify that this Certificate of Compliance documentation is accurate and complete.</p>	Author Name Author Signature Date Signed Company Name CEA/AEA/ECC Certification ID Address City/State/Zip Phone
Responsible Person's Declaration Statement <p>I certify the following under penalty of perjury, under the laws of the State of California:</p> <p>1. The information provided on this Certificate of Compliance is true and correct.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>5. I understand that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.</p> <p>6. 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. I will take the necessary steps to fulfill this requirement.</p>	Responsible Name Responsible Signature Date Signed Company Name License No. Address City/State/Zip Phone

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	CF1R-ENV-04-E
Solar Reflectance Index Calculation Worksheet	(Page 1 of 1)

CF1R-ENV-04-E User Instructions

Calculate the Solar Reflectance Index (SRI) value by using SRI Calculation Worksheet found on the California Energy Commission website under 'Worksheets' at: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-3>.

A. Product Information

1-6. Tag/ID, Cool Roof Rating Council (CRRC) Product ID Number, Manufacturer, Brand, Model and Product Type should be based on product information from the Cool Roof Rating Council's website. The product directory is located at <https://coolroofs.org/directory/roof> and may be browsed either by viewing all products or by using the search function to find a specific product. Keep in mind that inclusion in the directory does not guarantee that a product will meet the energy code requirements.

7. Roof Pitch: Designate the roof slope as either “less than 2:12”(<2:12) or “greater than or equal to 2:12”(>2:12). A ratio of 2:12 is approximately 9.5 degree slope. The SRI requirement is based partly on the slope of the roof; low-sloped vs. steep-sloped

B. SRI Calculations

1. [Aged Reflectance Listed with Cool Roof Rating Council \(CRRC\)?](#): Indicate whether or not the product's 3-year Aged Solar Reflectance is listed on the CRRC website by selecting either “yes” or “no”.
2. Cool Roof Rating Council (CRRC) Listed Aged Solar Reflectance: If you selected “yes” in B01, input the CRRC listed 3-year Aged Solar Reflectance as a decimal between 0 and 1. If you selected “no” in B01, input “N/A”.
3. Initial Solar Reflectance: If you selected “no” in B01, input the CRRC listed Initial Solar Reflectance value as a decimal between 0 and 1. If you selected “yes” in B01, input “N/A”.
4. Calculated Aged Solar Reflectance: If you selected “no” in B01, input the CRRC listed Initial Solar Reflectance value as a decimal between 0 and 1. If you selected “yes” in B01, input “N/A”.
5. Thermal Emittance: Input the value for Thermal Emittance obtained from the CRRC. This value can be either the Initial Thermal Emittance or the 3-year aged value. Note that it also must be a decimal between 0 and 1.

C. Results

1. Solar Reflectance Index: Input a value greater than zero and less than or equal to 100. Transfer the proposed SRI value to the “SRI (Optional)” column of the appropriate CF1R-NCB, -ADD, or -ALT certificate of compliance.

Documentation Declaration Statements

1. The person who prepared the CF1R will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature (may be electronic).
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature (may be electronic).

City of Madera – Building Division

Attic Ventilation Worksheet

Job Address: _____

Step 1: Determine Total Square Feet of Attic Floor Space to be ventilated. (Repeat as needed.)

Length of Attic _____ x Width of Attic _____ = _____ sq. ft. of Attic (1a)

Length of Attic _____ x Width of Attic _____ = _____ sq. ft. of Attic (2a)

Length of Attic _____ x Width of Attic _____ = _____ sq. ft. of Attic (3a)

Length of Attic _____ x Width of Attic _____ = _____ sq. ft. of Attic (4a)

Net Ventable Attic space = _____ sq. ft. (b)

$$(1a + 2a + 3a + 4a +)$$

Step 2: Calculating Ventilation Requirements

_____ / 150 = _____ sq. ft. Total Code Required Ventilation (c)

$$(b)$$

Step 3: Convert sq. ft. into sq.in.

_____ x 144 = _____ sq. in. Total Code Required Ventilation (d)

$$(c)$$

Step 4: Determine High and Low Ventilation Requirements

_____ / 2 (high & low) = _____ sq. in. of Code Required Ventilation High (1f)

$$(d)$$
 _____ sq. in. of Code Required Ventilation Low (2f)

Step 5: Determine High and Low Ventilation Requirements

	# of Vents	Type of Vent	Size (In.) Width X Length	*Sq. In.	Total Sq. In.
Existing High Vents					
Existing Low Vents					
Provided High Vents					
Provided High Vents					
Provided Low Vents					
Provided Low Vents					

*Net free sq. in. per vent manufacturer

Total Ventilation Provided, Including Existing _____ sq. in.

Total Code Required Ventilation _____ sq. in.



Smoke and Carbon Monoxide Alarms Self-Certification Form

This self-certification form may be used if the interior of the dwelling will not be accessible to inspect the placement of Smoke and Carbon Monoxide (CO) alarms at the time of final inspection.

California Residential Code (CRC) Section 314 requires that Smoke alarms are installed in existing dwellings **anytime** a building permit with a job valuation more than \$1,000.00 is issued for an addition, repair or alteration.

California Residential Code (CRC) Section 315 requires that Carbon Monoxide (CO) alarms are installed in existing dwellings that have attached garages or fuel-burning appliances **anytime** a building permit with a job valuation of more than \$1,000.00 is issued for an addition, repair or alteration. Furthermore, Health and Safety Code Section 17926 states that all single-family dwellings that have attached garages or fuel-burning appliances must have a CO alarm installed prior to July 1, 2011 and that all other dwelling units that have attached garages or fuel-burning appliances must have a CO detector installed prior to January 1, 2013.

Smoke and Carbon Monoxide alarms shall be located outside each sleeping area, near bedrooms and on every story of the dwelling; including basements and habitable attics.

Additional Smoke alarms are required in each sleeping room and any room and any room with a closet.

Work subject to a building permit includes but is not limited to; furnaces, water heaters, sewer or water line replacements, reroofs, etc.

I understand the above requirements, and certify that Smoke and Carbon Monoxide alarms have been installed correctly and comply with all the above-listed requirements for the following address:

Property Address: _____ Building Permit # _____

I hereby declare and certify, under penalty of perjury under the laws of the State of California, that:

- Smoke alarms have been installed as required by the CRC and the manufacture's recommendations.
- Carbon Monoxide alarms have been installed as required by the CRC and the manufacture's recommendations.

Owner or Authorize Agent Signature

Contractor Signature

Date

Smoke and Carbon Monoxide alarms were installed by: _____
Name of Contractor, Owner or Authorized Agent

Mailing Address, City, State, Zip

Phone Number