

**DOCKETED**

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<b>Project Title:</b>	2019 ENERGY CODE COMPLIANCE MANUALS
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**SOLAR REFLECTANCE INDEX CALCULATION WORKSHEET**

CEC-CF1R-ENV-04-E (Revised 01/19)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE		CF1R-ENV-04-E
Solar Reflectance Index Calculation Worksheet		(Page 1 of 2)
Project Name:	Date Prepared:	

**A. Product Information**

01	CRRC Product ID Number	
02	Manufacturer	
03	Brand	
04	Model	
05	Product Type	
06	Roof Pitch	

**B. SRI Calculations**

01	Aged Reflectance Listed with CRRC	
02	CRRC Listed Aged Solar Reflectance	
03	Initial Solar Reflectance	
04	Calculated Aged Solar Reflectance	
05	Thermal Emittance	

**C. Results**

01	Solar Reflective Index	
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**SOLAR REFLECTANCE INDEX CALCULATION WORKSHEET**

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CERTIFICATE OF COMPLIANCE		CF1R-ENV-04-E
Solar Reflectance Index Calculation Worksheet		(Page 2 of 2)
Project Name:	Date Prepared:	

<b>DOCUMENTATION AUTHOR'S DECLARATION STATEMENT</b>	
1. 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:
<b>RESPONSIBLE PERSON'S DECLARATION STATEMENT</b>	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> <li>The information provided on this Certificate of Compliance is true and correct.</li> <li>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).</li> <li>That 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.</li> <li>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.</li> <li>I will ensure that a registered 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 registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.</li> </ol>	
Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone:

Registration Number:

Registration Date/Time:

HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

January 2019

**CF1R-ENV-04-E User Instructions**

Calculate the SRI value by using the Solar Reflectance Index (SRI) Calculation Worksheet found on the California Energy Commission website at: [http://energy.ca.gov/title24/2013standards/documents/solar\\_reflectance/](http://energy.ca.gov/title24/2013standards/documents/solar_reflectance/).

**A. Product Information**

- 1-5. 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 <http://www.coolroofs.org/products/search.php> 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 requirements.
6. Roof Pitch: Designate the roof slope as either "less than or equal to 2:12" ( $\leq 2:12$ ) or "greater than 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.

**B. SRI Calculations**

1. Aged Reflectance Listed with CRRC?: Indicate whether or not your product's 3-year Aged Solar Reflectance is listed on the CRRC website by selecting either "yes" or "no" from the drop-down list. Depending on your selection, the boxes that you will not need should become blacked out.
2. CRRC Listed Aged Solar Reflectance: If you selected "yes" to box 1, input the CRRC listed 3-year Aged Solar Reflectance.
3. Initial Solar Reflectance: If you selected "no" to box 1, input the CRRC listed Initial Solar Reflectance value as a decimal between 0 and 1.
4. Calculated Aged Solar Reflectance: No input required. The calculator will calculate the Aged Solar Reflectance using the Initial Solar Reflectance once you hit enter or click outside the box.
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: If you have entered values for both Solar Reflectance and Thermal Emittance, once you press enter or click outside the box, the calculator will calculate the final SRI value. It may take a few moments to obtain a value for the SRI depending on the values you inputted for Reflectance and Emittance. Transfer the proposed SRI value to the "SRI (Optional)" column of the appropriate CF1R-NCB, -ADD, or -ALT certificate of compliance.

**A. Product Information**

01	CRRC Product ID Number	<< user input: text >>
02	Manufacturer	<<user input: text>>
03	Brand	<<user input: text>>
04	Model	<<user input: text>>
05	Product Type	<<text (data from CF-1R)>>
06	Roof Pitch	<<text (data from CF-1R)>>

**B. SRI Calculation**

01	Aged Reflectance Listed with CRRC	<<user pick from list: <u>Yes</u> ; No>>
02	CRRC Listed Aged Solar Reflectance	<<user input: numeric>>
03	Initial Solar Reflectance	<<user input: numeric>>
04	Calculated Aged Solar Reflectance	<<xxx.x (null entry, this value is calculated)>>
05	Thermal Emittance	<<user input: numeric>>

**C. Results**

01	Solar Reflective Index	<<xxx.x (null entry, this value is calculated)>>
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