

# Committee Updates





A photograph of a city skyline at dusk. In the foreground, there are tram tracks and a blurred tram. The middle ground features several modern buildings with illuminated windows. A large construction crane is visible in the background. The sky is a mix of purple and blue.

# Technical Committee Update

George Daisey  
Committee Chair

havas



# The Technical Committee resolves core scientific and technical issues for the Roof Product Rating Program





# Technical Committee Members

Voting Members	
Name	Affiliation
Steve Heinje	GAF
Ronnen Levinson	LBNL
Andre Desjarlais	ORNL
Randy Ober	Carlisle Construction Materials
Greg Keeler	Owens Corning
Bob Zabcik	Metal Construction Association
Michael Crewdson	Q-Lab Weather Research Service
Krystal Del Regno	Sherwin-Williams
Rick Olson	Tile Roofing Industry Alliance
Kurt Sosinski	Interested Individual
Andrew Jambor	ACE Laboratories
George Daisey	Dow
<b>Chair</b>	
Sid Dinwiddie	Asphalt Roofing Manufacturers Association
Annette Sindar	Eagle Roofing Products
<b>Vice Chair</b>	
Rebecca Everman	3M
Michael Joyce	R&D Services, Inc.

Alternate Members	
Name	Affiliation
Anna Johnson	Arkema
Hashem Akbari	Concordia University
Steve Cuculich	UL
Walter McIntosh	Holcim Solutions and Products US, LLC
Brendan Dineen	Malarkey Roofing
David Cocuzzi	National Coil Coating Association
Rich Slomko	Atlas Material Testing Technology
Bill Hendricks	FSR Treatment Inc.
Robin Anderson	Westlake Royal Roofing Solutions
Payam Bozorgchami	California Energy Commission
Rodney Armstrong	ACE Laboratories
Mike Sand	General Coatings Manufacturing Corp.
Heather Estes	GAF
Tyler Allwood	Eagle Roofing Products
Maureen Kavanagh	3M
Tyler Westerling	Architectural Testing, Inc. / Intertek





# The Technical Committee Responsibilities



- Evaluate and resolve fundamental scientific and technical issues associated with the CRRC Roof Program
- Oversee technical research



# 2024-25 Committee Discussion Topics

- Definition for Stone-Coated Metal roofing
- Revisions to use of ASTM E903 in CRRC-1 Roof Program
- Revisions to definition of Liquid-Applied Roof Coating to align with ANSI/CRRC S100 (2025)
- Revisions to definition of Liquid-Applied Roof Covering for clarity
- Procedural changes to implementation of Lab Aging Procedure
- Revisions to 5-Point Reflectance Test
- Changes to Validation Testing for Tile Roofing Products
- CRRC Program Manual Digitization Project



# Technical Committee Staff Contact

Sarah Schneider

[sarah@coolroofs.org](mailto:sarah@coolroofs.org)





# Technical Research Update

Stacey Weister

CRRC Senior Technical Manager





# Technical Research Projects

**EVTM**  
**Phase 2**  
Evaluating  
Variegated Test  
Methods

Comparison of  
Rapid Ratings and  
Naturally Aged  
Values

**ILC**  
Interlaboratory  
Comparison Study



# Evaluating Variegated Test Methods Pt. 2

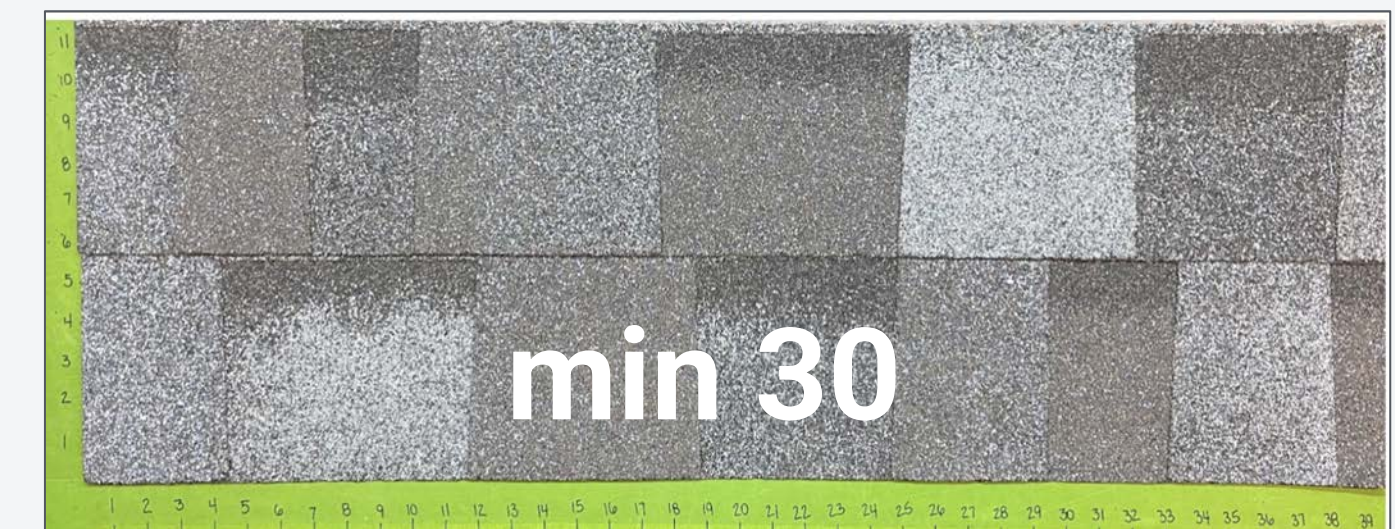
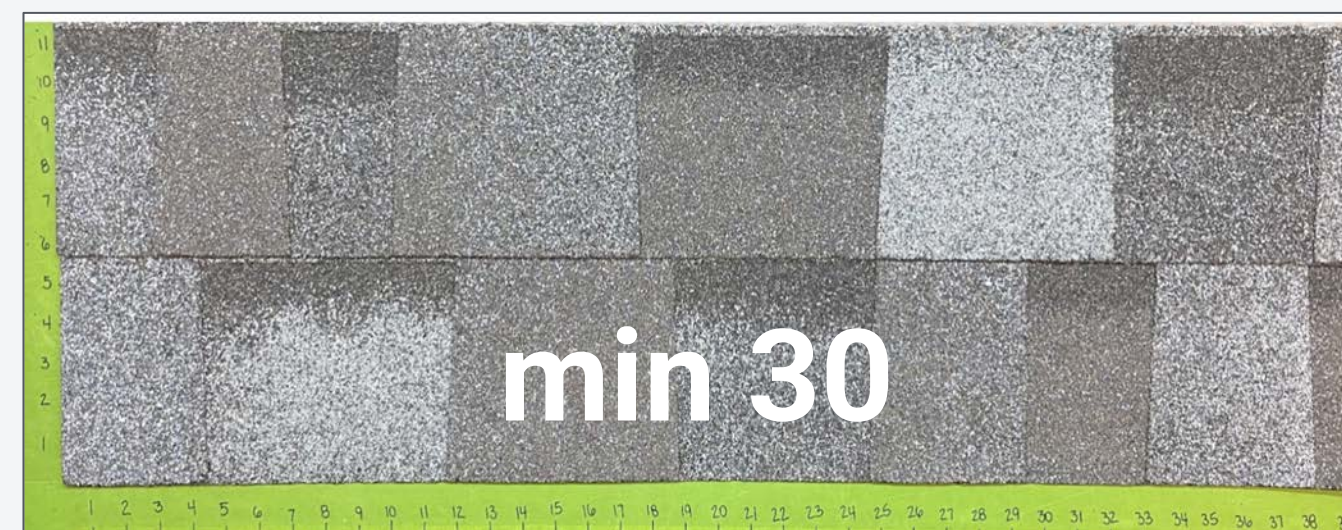
## ➤ Purpose:

- Determine if the CRRC's testing requirements for variegated (multi-colored) roofing products can be improved.
- Continuation of the Evaluating Variegated Test Methods (EVTM) study that was conducted in 2021.



# Evaluating Variegated Test Methods Pt. 2

- **Variegated** - a roof or wall material with a varied surface color or has discrete markings of different colors.



Min. **90** Solar Reflectance Measurements per Product



# Evaluating Variegated Test Methods Pt. 2



CRRC Test Method #1		
Option #1		Option #2
0.01	Range	0.003
0.003	Minimum	0.002
0.013	Maximum	0.005



# Alternative Variiegated Test Methods

## Option #1

10 measurements  
60 per product

- 2 to 3 inches apart in a straight line
- 2 inches from the left
- 2 inches under overlap

## Option #2

6 measurements  
36 per product

- 2 measurements from each of the light, medium, and dark areas



# Alternative Variiegated Test Methods

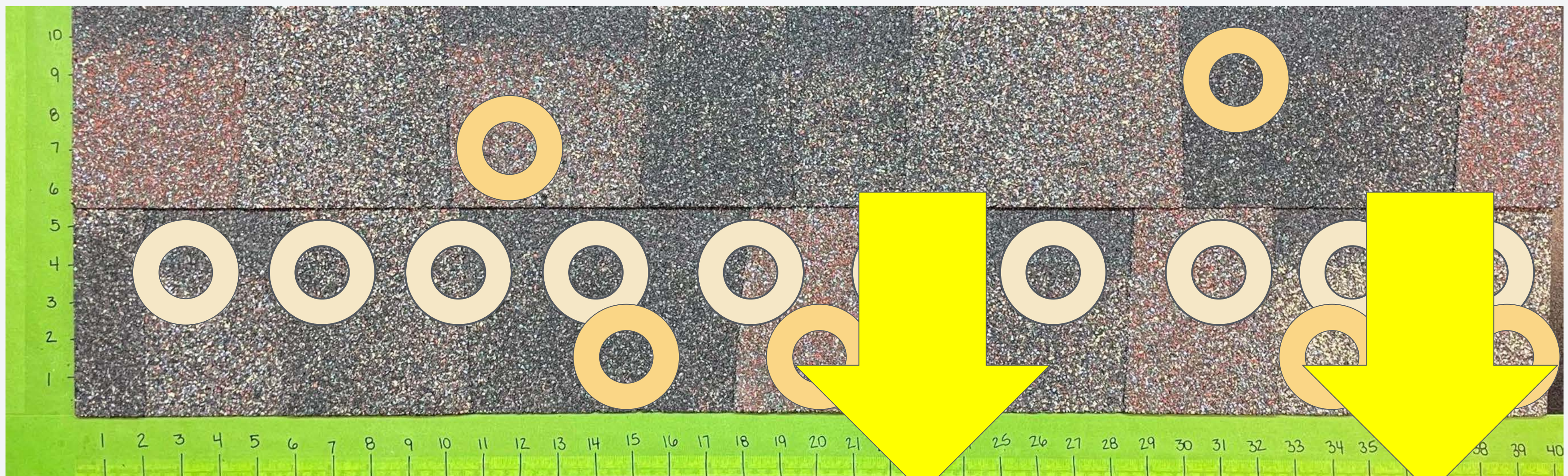


Photo credit: Cool Roof Rating Council

Product	Rated Value	Option 1	Difference	Option 2	Difference
A	0.177	0.164	0.013	0.172	0.005
B	0.194	0.184	0.01	0.190	0.004
C	0.136	0.128	0.008	0.133	0.003
D	0.232	0.229	0.003	0.230	0.002



# Evaluating Variegated Test Methods Pt. 2

## ➤ Next Steps:

- Discuss the findings and additional research conducted by CRRC AITLs with the Technical Committee in October 2025
- Propose a full Round Robin Study.



## Comparison of Rapid Ratings and Naturally Aged Values

- **Purpose:** Verify the accuracy of the CRRC Rapid Ratings procedure to determine if further research is needed regarding the the Rapid Ratings procedure for specific product types.



# Comparison of Rapid Ratings and Naturally Aged Values

CRRC

Rated Roof Products

Wall Directory

Support

Search keywords

Clear Filters

Product Type

Colors

Solar Reflectance

Thermal Emittance

SRI

Manufacturer:

All

Slope:

All

Product Market:

All Markets


Directory Disclaimers

CRRC Rated Products

3150 results

Sort by Date Added

CRRC PROD ID.	MANUFACTURER	BRAND AND MODEL	PRODUCT TYPE	COLOR	SOLAR REFLECTANCE		THERMAL EMITTANCE		SRI		
					INITIAL	3 YEAR	INITIAL	3 YEAR	INITIAL	3 YEAR	
0870-0027	Berridge Manufacturing Company	Berridge Manufacturing Company ROYAL BLUE	Metal	Blue	0.25	0.25	0.83	0.83	22	22	
0870-0015	Berridge Manufacturing Company	Berridge Manufacturing Company TERRA COTTA	Metal	Red	0.35	0.35	0.83	0.83	35	35	
0810-0038-014	PPG Industries	Duramar® ULTRA-Cool® Terra Cotta II / BN5R263B	Metal	Red	0.35	0.35	0.83	0.83	35	35	
0870-0010	Berridge Manufacturing Company	Berridge Manufacturing Company COLONIAL RED	Metal	Red	0.25	0.25	0.83	0.83	22	22	
0810-0037-022	PPG Industries	Duramar® ULTRA-Cool® COLONIAL RED / BN5R108B	Metal	Red	0.25	0.25	0.83	0.83	22	22	
0620-0074 (smooth)	Henry® A Carlisle Company	Henry® 887 Tropi-Cool® 100% Silicone Gray Roof Coating	Coating	Gray	0.28	0.27*	0.91	0.91*	30	29*	

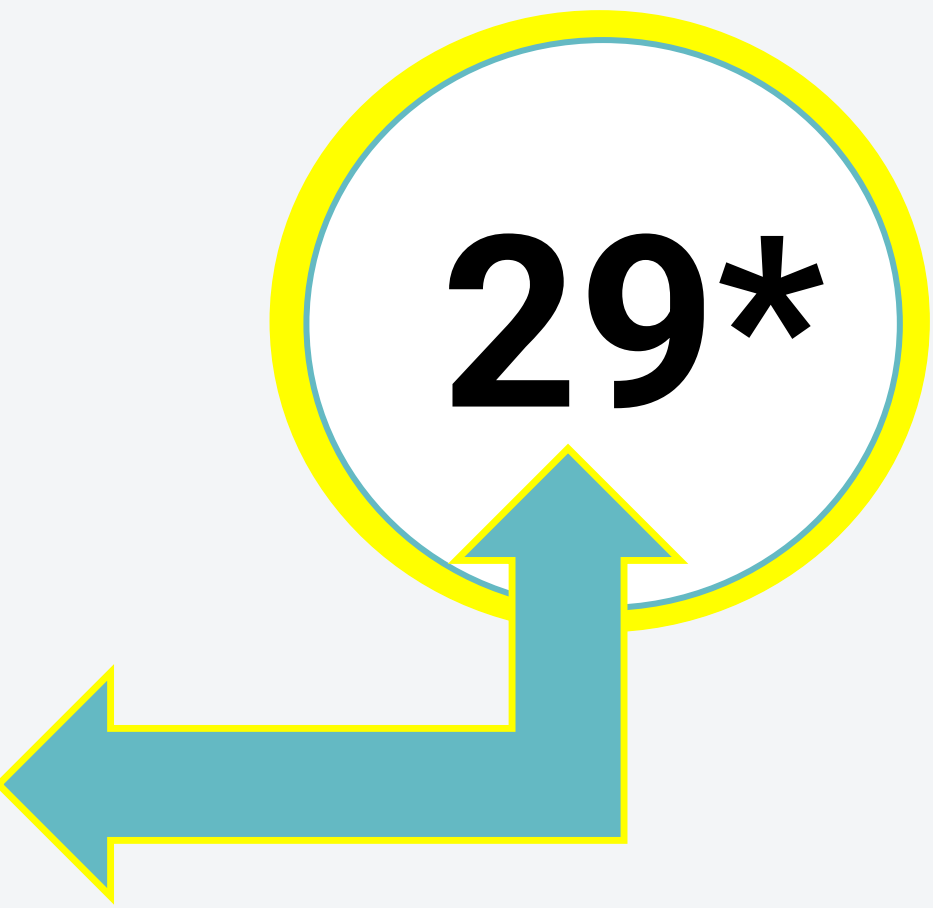


**CRRC**  
COOL ROOF  
RATING COUNCIL®

**RAPID RATINGS**

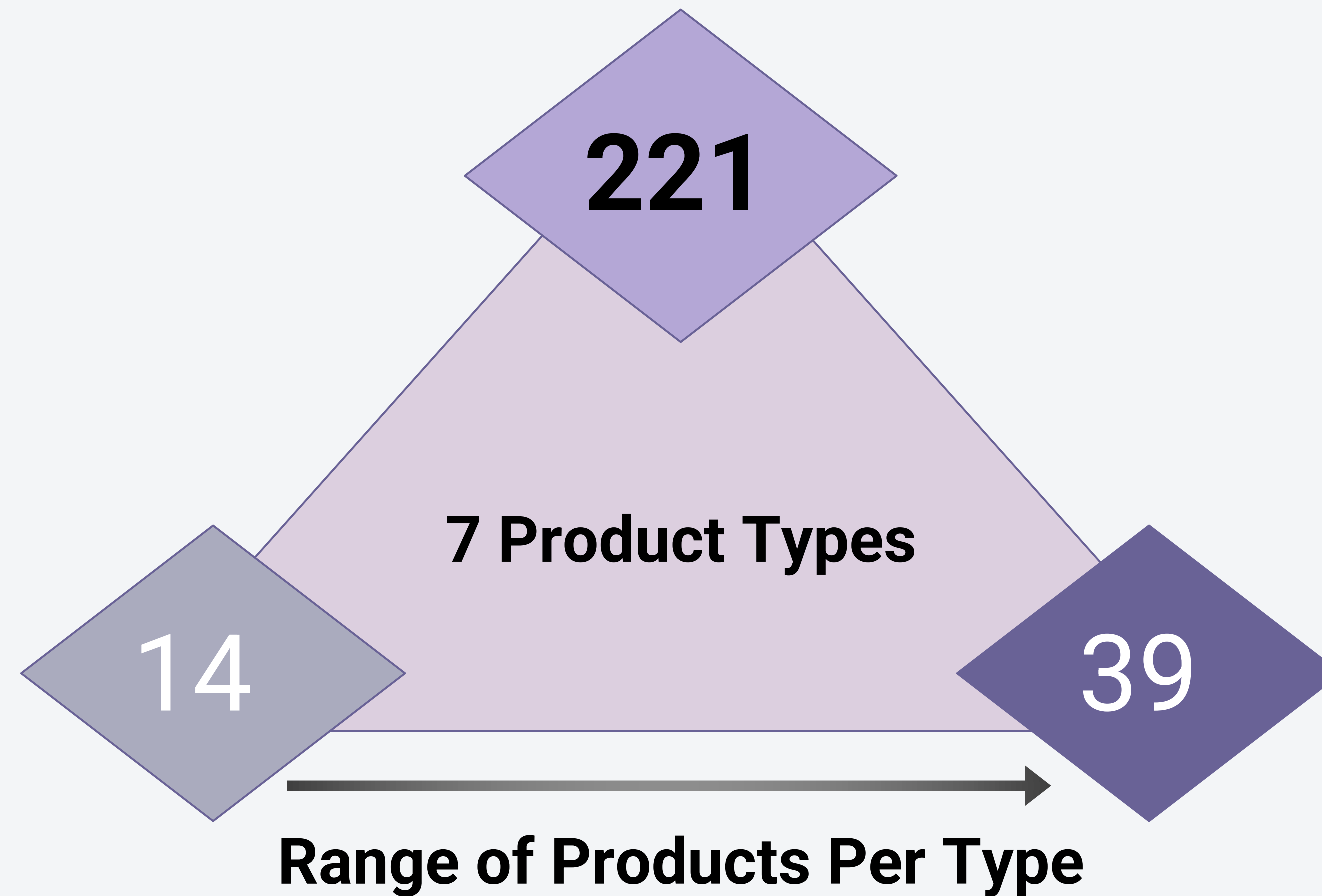
	Initial	Rapid Ratings*	Weathered
Solar Reflectance	_____	_____	Pending
Thermal Emittance	_____	_____	Pending
Rated Product ID	_____		
Licensed Manufacturer ID	_____		
Classification	_____		
Production Line	_____		

\*CRRC Rapid Ratings: These are interim laboratory-aged values that simulate weathered values. These values will be replaced with the measured three-year aged values upon completion of the weathering process. Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary. Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.





# Comparison of Rapid Ratings and Naturally Aged Values





# Comparison of Rapid Ratings and Naturally Aged Values

## ➤ **Next Steps:**

- CRRC staff will continue monitoring data for a comprehensive analysis, anticipated by late 2026 or early 2027.



# Interlaboratory Comparison (ILC) Study

- **Purpose:** Evaluate the consistency of testing and reporting among CRRC-approved testing laboratories, ensure compliance in testing and reporting, and identify areas for improvement related to test methods, reporting, and training.

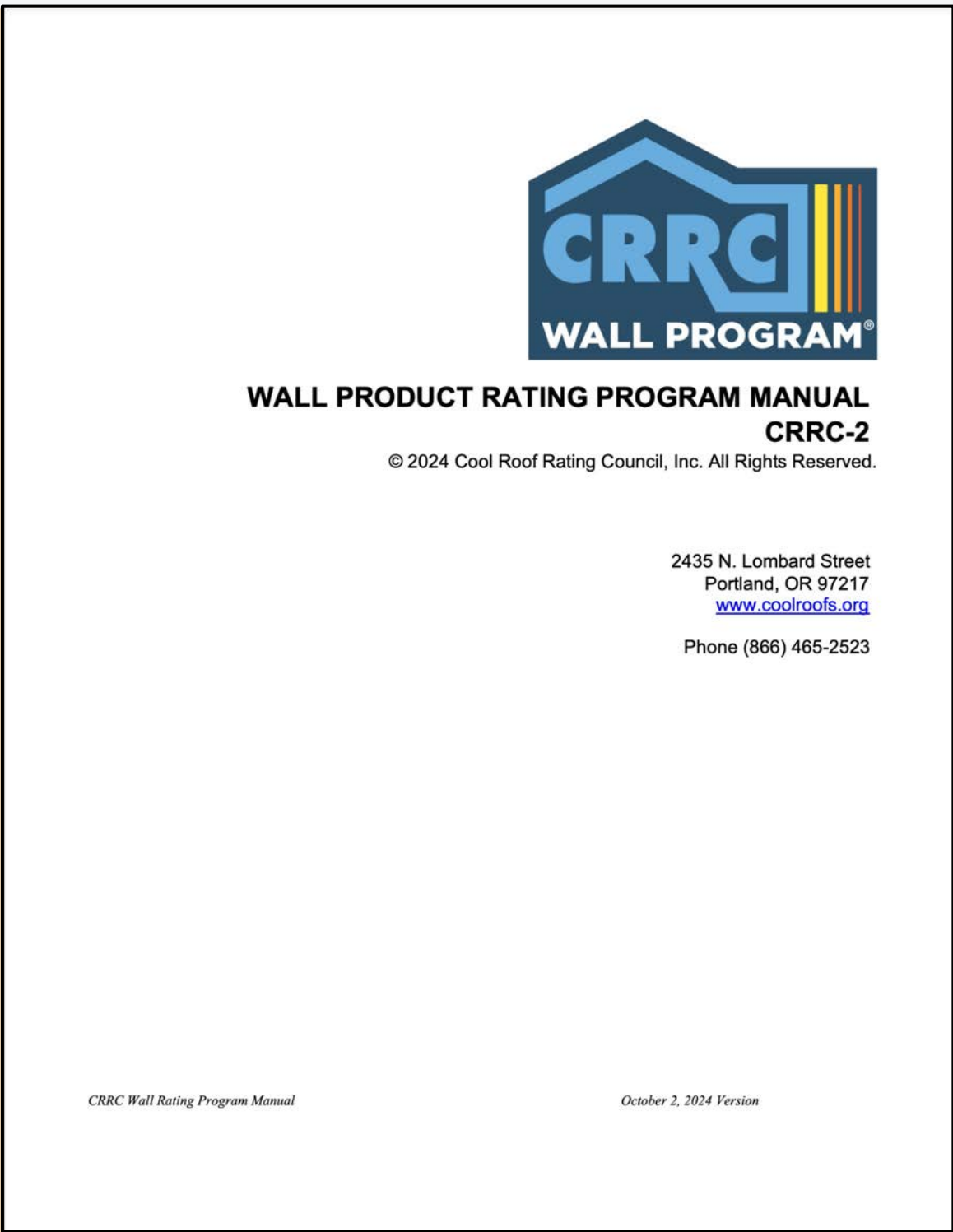
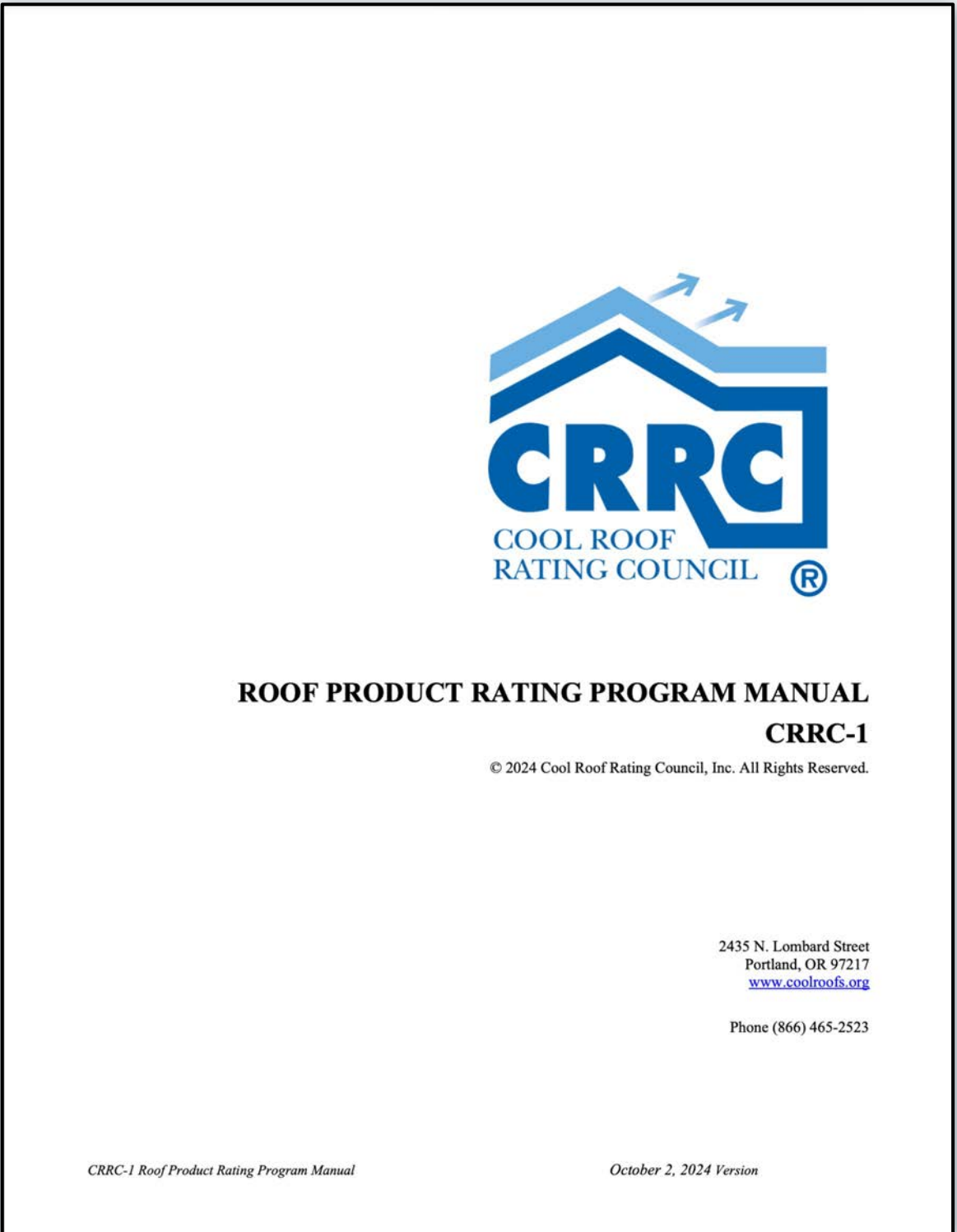


# Interlaboratory Comparison (ILC) Study

## Solar Reflectance



## Thermal Emittance





# Interlaboratory Comparison (ILC) Study

Roof Products
Liquid-Applied Coatings
Tile
Asphalt Shingle
Single-Ply
★ Metal Shingle
Factory-Coated Metal

★ Wall Products
Architectural Coating
Factory Coated Metal

Rapid Ratings
Single-Ply



# Interlaboratory Comparison (ILC) Study

12 Labs  
9 Products





# Interlaboratory Comparison (ILC) Study

## ➤ **Next Steps:**

- Progress update October 2025
- Final Results March 2026



# ASTM Representation

- Committee C16 on Thermal Insulation
  - Subcommittee C16.30
    - C1549 - *Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer*
    - C1371- *Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers*
- Committee D08 on Roofing and Waterproofing
  - Subcommittee D08.09, Liquid Applied Coatings for Roofing and Asphaltic Concrete Pavement



# ASTM Representation

- Committee D08 on Roofing and Waterproofing (con't)
  - Subcommittee D08.20, Roofing Membrane Systems
    - D7897, *Standard Practice for Laboratory Soiling and Weathering of Roofing Materials to Simulate Effects of Natural Exposure on Solar Reflectance and Thermal Emittance*  
~ **Task Group Chair**
    - E1980, *Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces*  
~ **Task Group Chair**
    - E1918, *Standard Test Method for Measuring Solar Reflectance*  
~ **Technical Contact**



# ASTM Representation

- Committee D01 on Paint and Related Coatings, Materials, and Applications
  - Subcommittee D01.44, Traffic Coatings
- Committee D04 on Road and Paving Materials
- Committee EPC on Emerging Professionals Committee



# Update - ASTM E1980

This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.



Designation: E1980 – 24

## Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low- Sloped Opaque Surfaces<sup>1</sup>

### 4. Summary of Practice

4.1 For a surface exposed to the sun, when the conduction into the material is zero, the steady-state surface temperature is obtained by:

$$\alpha I = \varepsilon \sigma (T_s^4 - T_{sky}^4) + h_c (T_s - T_a) \quad (1)$$

where:

$\alpha$  = solar absorptance = 1 – solar reflectance,  $I$  =

solar flux,  $\text{W} \cdot \text{m}^{-2}$ ,  $\varepsilon$  = thermal emissivity,

$\sigma$  = Stefan Boltzmann constant, ~~5.66961~~ **5.67037**  $\times 10^{-8} \text{ W} \cdot \text{m}^{-2} \cdot \text{K}^{-4}$ ,

$T_s$  = steady-state surface temperature, K,  $T_{sky}$  =

sky temperature, K,

$h_c$  = convective coefficient,  $\text{W} \cdot \text{m}^{-2} \cdot \text{K}^{-1}$ , and  $T_a$  =

air temperature, K.





# Technical Research Staff Contact

Stacey Weister

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An aerial photograph of a city skyline at sunset. The sky is a mix of orange, yellow, and purple. In the foreground, a large, multi-decked riverboat with white railings and red accents is moving down a river, leaving a wake. The city skyline in the background features several tall skyscrapers, some of which are illuminated. The water reflects the colors of the sky and the lights of the city.

# Ratings, Codes & Standards Committee Update

Sarah Schneider  
CRRC Deputy Director



# RCS Committee Purpose

To provide assistance to jurisdictions, national model codes and standards developers, green building policies, and voluntary programs about obtaining fair, accurate, and credible radiative performance ratings through the use of Cool Roof Rating Council (CRRC) programs and standards



# RCS Committee Scope

- Advocates for adoption of CRRC references in codes and standards
- Expands partnerships with end users
- Develops proposals and public comments





# RCS Committee Members

Name	Affiliation
Heather Estes. <b><i>Vice Chair</i></b>	GAF
Nav Koonar	Cedar Shake and Shingle Bureau
Bryn Moncelsi	Climate Resolve
Wade Shepherd	Westlake Royal Roofing Solutions
Kurt Shickman	Interested Individual
Amanda Turner, <b><i>Chair</i></b>	Cornerstone Building Brands
Howard Wiig	Hawaii State Energy Office
Andrew Wilson	Central States Manufacturing



# 2025 Activities



**Roadmap**



**Engagement**



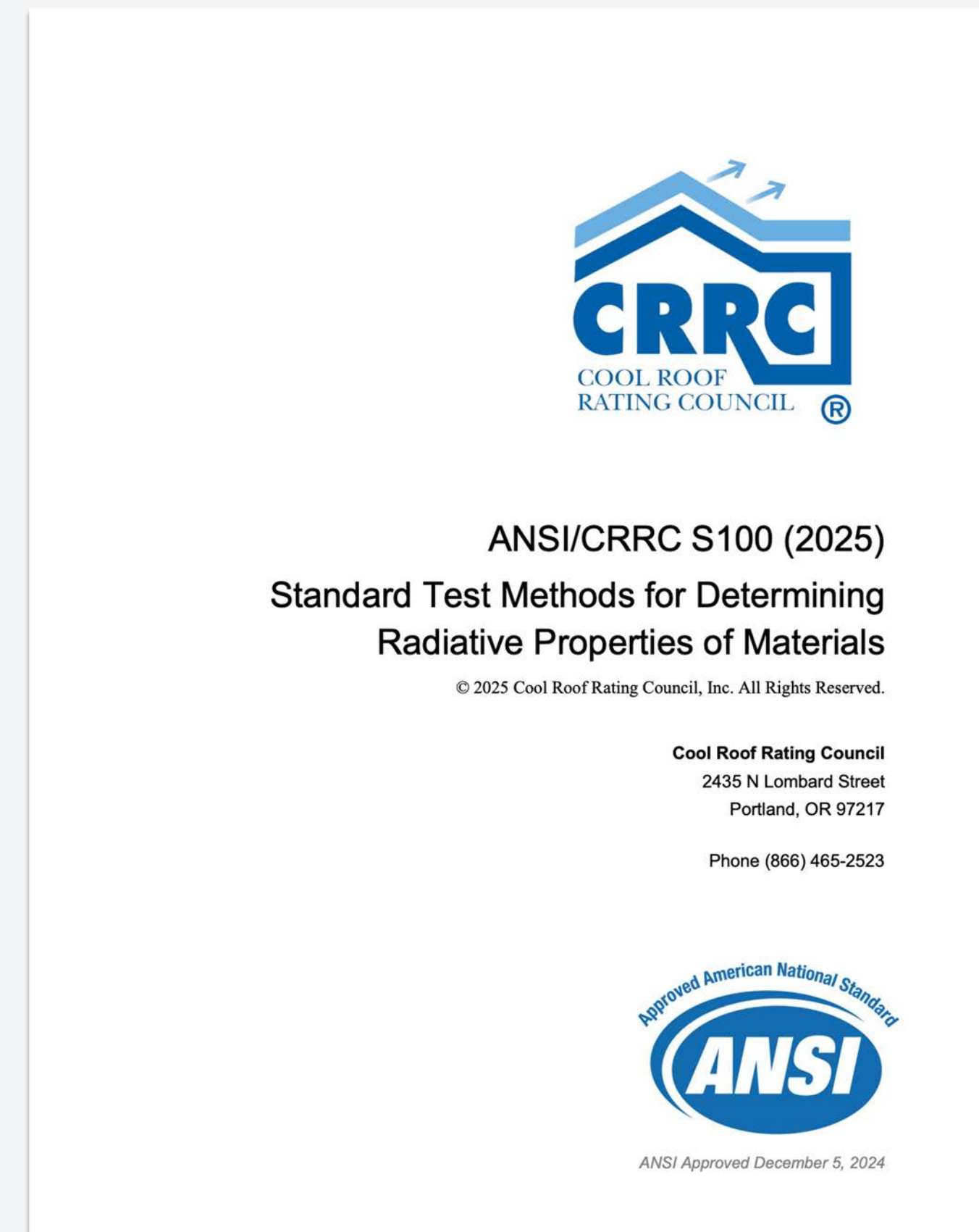
**Proposals**





# 2025 Activities

- Communicating the new version
- Published Dec. 2024, and available for free [online](#)
- Major changes include:
  - Wall materials testing & weathering
  - Rough substrates for coatings
  - Polymer/composite materials
- Reference Guide also [online](#)





# Roadmap

**What**

Increase references to the CRRC in codes, standards & programs

**Why**

(1) To standardize testing & aging of roof and wall materials;  
(2) to help increase C&S compliance with the use of CRRC directories;  
and  
(3) to boost participation in CRRC Roof and Wall Programs.

**How**

Through multi-pronged approach

**When**

Through 2025 (and beyond)



# Engagement



- Increased presence and participation at C&S meetings and public hearings
- Continued providing CRRC educational materials and information to end users



# Proposals



- Submitted 5 code modification proposals in 2025
- Monitoring active proposals from prior years



# Adopted CRRC S100 References

## Model Energy Codes & Standards

ASHRAE Standard 90.1

International Energy Conservation Code (IECC)

International Residential Code (IRC)

RESNET (ANSI/RESNET/ICC 301)

## Green Building Rating Systems

LEED v5

ANSI/GBI 01 (Green Globes)

## Green Building Codes & Standards

ASHRAE Standard 189.1

International Green Construction Code (IgCC)

## Jurisdictions

Florida Building Code

Georgia Construction Code

Hawaii Energy Building Code



# Requires CRRC Rated Products

## Municipalities

Baltimore City Building Code  
Chicago Energy Transformation Code  
City and County of Los Angeles  
Denver Green Building Ordinance  
District of Columbia Construction Codes  
Miami Zoning Ordinance

## Rebate Programs

LADWP Cool Roof Rebate  
Louisville Cool Roof Rebate Program  
Salt River Project Cool Roof Rebate  
San Antonio Cool Roof Rebate  
Toronto Eco-Roof Program

## States

California Energy Code



# RCS Committee Staff Contact

Sarah Schneider  
[sarah@coolroofs.org](mailto:sarah@coolroofs.org)

