



**LEED v4 Sustainable Sites (SS):
SS Heat Island Reduction for AEP Span**

Applicable Credits:

OPTION 1. Heat Island Reduction (1-2 points)

AEP Span architectural metal roof panels are available in a range of colors which meet or exceed LEED® v4 criteria for the Heat Island Reduction credit.

The criteria for this credit requires that roofing materials have a Solar Reflectance Index (SRI) equal to or greater than the three-year aged SRI values in Table 1 below. If three-year aged value information is not available, use materials that meet initial SRI values.

	Slope	Initial SRI	3-Year Aged SRI
Low Sloped Roof	≤2:12	82	64
Steep Sloped Roof	≥2:12	39	32

Table 1. Minimum solar reflectance index value, by roof slope

Refer to the AEP Span Color Performance Data chart for information on solar reflectance, thermal emissivity, and SRI values for our cool metal roof colors.

Notable Reference:

This credit is achieved through a combination of non-roof and roof measures to reduce heat islands. The following calculation determines if a project design meets the credit threshold:

$$\begin{array}{ccccccc}
 \frac{\text{Area of Nonroof Measures}}{0.5} & + & \frac{\text{Area of High-Reflectance Roof}}{0.75} & + & \frac{\text{Area of Vegetated Roof}}{0.75} & \geq & \frac{\text{Total Site Paving Area}}{\text{Total Roof Area}}
 \end{array}$$

Initial SRI thresholds for roofing materials has increased from LEEDv2009.

LEED v4 now factors in a three-year aged SRI value for roofing material, which measures solar performance over time. The Cool Roof Rating Council (CRRC) website lists AEP Span three-year aged information. Note that the CRRC initial and three-year SRI values are based on generalized “color families.” The data listed on the CRRC website is very conservative as it does not reflect the actual performance of each color. AEP Span does not have three-year aged SRI values for each of its colors.



AEP Span Color Performance Data

Please note that color specific *CRRC Notification of Product Rating* can be produced upon request

PRODUCT DESCRIPTION	CA TITLE 24 & ENERGY STAR					LEED							
	via CRRC listings (data based on color families)				Energy Star		CA Title 24	via Accredited Independent Testing Laboratory (using ASTM C1548, C1371, & E1980)					
	CRRC Reference Number	Solar Reflectance (Init.)	Thermal Emittance (Init.)	SRI Init.	Low Slope	Steep Slope		Solar Reflectance (Init.)	Thermal Emittance (Init.)	SRI Init.	Low Slope (Leed V3)	Steep Slope (Leed V4)	
BARE ZINCALUME®													
ZINCALUME® Plus	1014-0002	0.68	0.30	65	✓	✓		0.68	0.30	65		✓	
DURATECH™ NT COLORS													
COOL TAHOE BLUE	0818-0027	0.25	0.83	22		✓	REFER TO CALIFORNIA ENERGY COMMISSION (CEC) REQUIREMENTS	0.33	0.84	33		✓	
COOL OLD TOWN GRAY	0818-0039	0.35	0.83	35		✓		0.40	0.84	43		✓	✓
COOL DENALI GREEN	0818-0028	0.25	0.83	22		✓		0.30	0.83	29		✓	
COOL RUSTIC RED	0818-0031	0.35	0.83	35		✓		0.40	0.84	43		✓	✓
COOL LIGHT STONE	0818-0033	0.55	0.83	63		✓		0.60	0.84	70		✓	✓
COOL DESERT BEIGE	0818-0042	0.45	0.83	49		✓		0.51	0.84	58		✓	✓
COOL CHESTNUT BROWN	0818-0034	0.32	0.83	31		✓		0.35	0.83	36		✓	
COOL WEATHERED COPPER	0818-0035	0.32	0.83	31		✓		0.32	0.83	32		✓	
COOL WINTER WHITE	0818-0044	0.70	0.83	84	✓	✓		0.73	0.83	88	✓	✓	✓
COOL SURF WHITE	0818-0036	0.55	0.83	63		✓		0.63	0.84	74		✓	✓
DURATECH™ 5000 & DURATECH™ MX COLORS													
COOL METALLIC SILVER	0818-0003	0.35	0.75	32		✓		0.57	0.82	65		✓	✓
COOL ZACTIQUE® II	0818-0004	0.35	0.75	32		✓		0.37	0.84	39		✓	✓
COOL METALLIC COPPER	0818-0006	0.35	0.75	32		✓		0.48	0.83	53		✓	✓
COOL METALLIC CHAMPAGNE	0818-0038	0.35	0.75	32		✓		0.48	0.84	54		✓	✓
COOL TAHOE BLUE	0818-0007	0.25	0.83	22		✓	0.33	0.84	33		✓		
COOL REGAL BLUE	0818-0008	0.25	0.83	22		✓	0.30	0.84	29		✓		
COOL OLD TOWN GRAY	0818-0009	0.35	0.83	35		✓	0.40	0.85	43		✓	✓	
COOL ZINC GRAY	0818-0010	0.35	0.83	35		✓	0.37	0.85	39		✓	✓	
COOL MARINE GREEN	0818-0011	0.32	0.83	31		✓	0.43	0.85	47		✓	✓	
COOL FOREST GREEN	0818-0012	0.25	0.83	22		✓	0.30	0.84	29		✓		
COOL HEMLOCK GREEN	0818-0048	0.32	0.83	31		✓	0.34	0.85	35		✓		
COOL JADE GREEN	0818-0014	0.25	0.83	22		✓	0.29	0.86	29		✓		
COOL LEAF GREEN	0818-0015	0.25	0.83	22		✓	0.30	0.85	30		✓		
COOL MATTE BLACK	0818-0046	0.25	0.83	22		✓	0.30	0.84	29		✓		
COOL COLONIAL RED	0818-0016	0.25	0.83	22		✓	0.34	0.85	35		✓		
COOL TERRA COTTA	0818-0037	0.35	0.83	35		✓	0.39	0.84	41		✓	✓	
COOL RED	0818-0017	0.35	0.83	35		✓	0.42	0.85	46		✓	✓	
COOL DARK BRONZE	0818-0018	0.25	0.83	22		✓	0.32	0.84	32		✓		
COOL PARCHMENT	0818-0047	0.45	0.83	49		✓	0.51	0.84	58		✓	✓	
COOL WEATHERED COPPER	0818-0019	0.32	0.83	31		✓	0.34	0.83	34		✓		
COOL SIERRA TAN	0818-0020	0.45	0.83	49		✓	0.49	0.84	55		✓	✓	
COOL REGAL WHITE	0818-0049	0.70	0.83	84	✓	✓	0.73	0.84	88	✓	✓	✓	
VINTAGE®	1014-0003	0.30	0.70	22			0.30	0.70	22				

All ratings listed above are initial readings. Three year performance data is located on the CRRC website and is based on CRRC color families.

^A - Reflectivity data for Bare ZINCALUME is actual 3 year weathered solar reflectivity data.

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