

### Research and Development

5/24/2017

#### Project: Lowe's Home Improvement Store, Yuma Arizona

**Purpose:** Evaluate color stability of both TEX•COTE® COOLWALL® and REFLECT-TEC® Heat Reflective Finish systems that were applied to this building in February 2013. Yuma, Arizona holds the Guinness World Record as the sunniest city on Earth, with sunshine 91 percent of daylight hours (a mean of 4,055 hours per year of 4,456 possible). Yuma is also officially the sunniest city in the United States, as well as the driest, least humid and the city with the least frequent days of precipitation. Yuma's average annual rainfall is around three inches a year. On average, there are 308 sunny days per year. The July high is around 107 degrees.

**Procedures:** Color measurements were made at various locations around the building and were recorded using an X-Rite SP62 spectrophotometer. Original and current readings were compared, and Delta E color difference was calculated.

#### **Results:**

50 Months (4 years 2 months) Exposure color comparison				
South Side Wall – near store entry	DL	Da	Db	DE
CoolWall Light Beige	-1.01	0.02	0.16	1.02
CoolWall Medium Beige	-0.27	0.16	-1.34	1.38
CoolWall Dark Beige	-0.75	-0.40	-0.46	0.97
West Side Wall				
CoolWall Light Beige	-0.03	-0.09	-0.48	0.49
CoolWall Medium Beige	0.06	-0.18	-0.27	0.33
North Side Wall				
CoolWall Light Beige	-0.20	-0.15	-0.79	0.83
Reflect-Tec Light Beige Door	-0.69	-0.04	0.11	0.70
Reflect-Tec Light Beige Down Spout	-0.44	-0.03	-0.27	0.52
Light Pole				
Reflect-Tec Medium beige	-0.61	0.52	0.28	0.85
Conventional Paint* *Typical values seen				7.0+

**Conclusion:** Both COOLWALL® and REFLECT-TEC® Heat Reflective Finish systems have demonstrated superior color stability versus conventional coating products even in the sunniest place on earth! Since research has shown that the majority of fading is caused by UV rays, visible light and heat, this is a perfect location to test these TEX•COTE® products with fade blocking technologies!



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**Near Store Entrance** 

West side Wall







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North side Down Spout

Pole