



Krannert Art Museum

LED lamp retrofit project

2013

Efficiency

The use of LED lamps saves money by using less energy and reducing labor costs:

Energy: \$2.41/year per LED vs. \$ 24.10/year for standard Incandescent or 10x more efficient

Labor: It takes on average 10 minutes to change a lamp. We have well over 500 lamps throughout the museum. Assuming we change lamps 10x less that's ~ 70 hours of labor cost saved per year.

Our current standard lamps are **300 watt** and **85 watt** incandescent lamps. They last 5,000+ hours

The proposed replacement LEDs will be **21 watt** and **17 watt**. They will last 25,000+ hours

Options

The US Department of Energy changed the efficiency standards in 2012 requiring an increase in lamp efficiency by 25%

The Smithsonian American Art Museum held a conference in March, 2013 called 'LED Lighting in Today's Museums'

We are basing our lamp selection on the successful LED implementation stories discussed at that conference

Better for the Art

LED lamps produce no (or minimal) UV (Ultraviolet) or IR (Infrared) light

We need light to see the art

We need less UV and IR to protect the art

KAM's collection ranges from works dating to 9000 BCE era to art produced in 2013

Better for Viewers

Cleaner, whiter light for viewing fine details and colors

3000 – 4000K CRI (Color Rendering Index) lamps

The art will be around for longer – less light deterioration
in colors and fading within works on paper

Where will the funds go?

East Gallery

Wall washers: 70

Cans (Track lights): 30

100 lamps x \$42/lamp = \$4200

Noel Gallery

Wall washers: 50

Cans (Track lights): 21

71 lamps x \$42/lamp = \$2982

Thank You



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