



**Highway Attachment – 2016 Power Point Presentation to Tempe City Council on LED  
Lighting**

**Tempe, Arizona**

**HWY18MH010**

**(8 pages)**

# LED Street & Park Lighting Conversion

City Manager's Announcements  
October 27, 2016



# LED Program

## Evolution of Technology

- High Pressure Sodium (HPS)
- Induction
- LED

## Asset Management

- Condition of assets
- Evaluate options
- Consider return on investment

## Environmental Stewardship

- Reduce carbon footprint
- Council energy reduction goal
- 100,000 hour lasting fixtures

## Good Government

- Initiated pilot program
- Held public meetings to gather input
- Sensitive to varying locations in city; 1 size does not fit all

## Implementation Plan

- Phase 1 - Residential (4000 HPS lights to LED over 4 years)
- Phase 1 - Parks (900 HPS lights to LED over 9 years)
- Phase 2 - Arterials (5500 HPS lights to LED)

# Key Considerations

- Light Quality
- Energy Use
- Maintenance
- Impact on public safety
- Costs



# Three Distinct Color Temperatures



- Existing 2200 Kelvin HPS

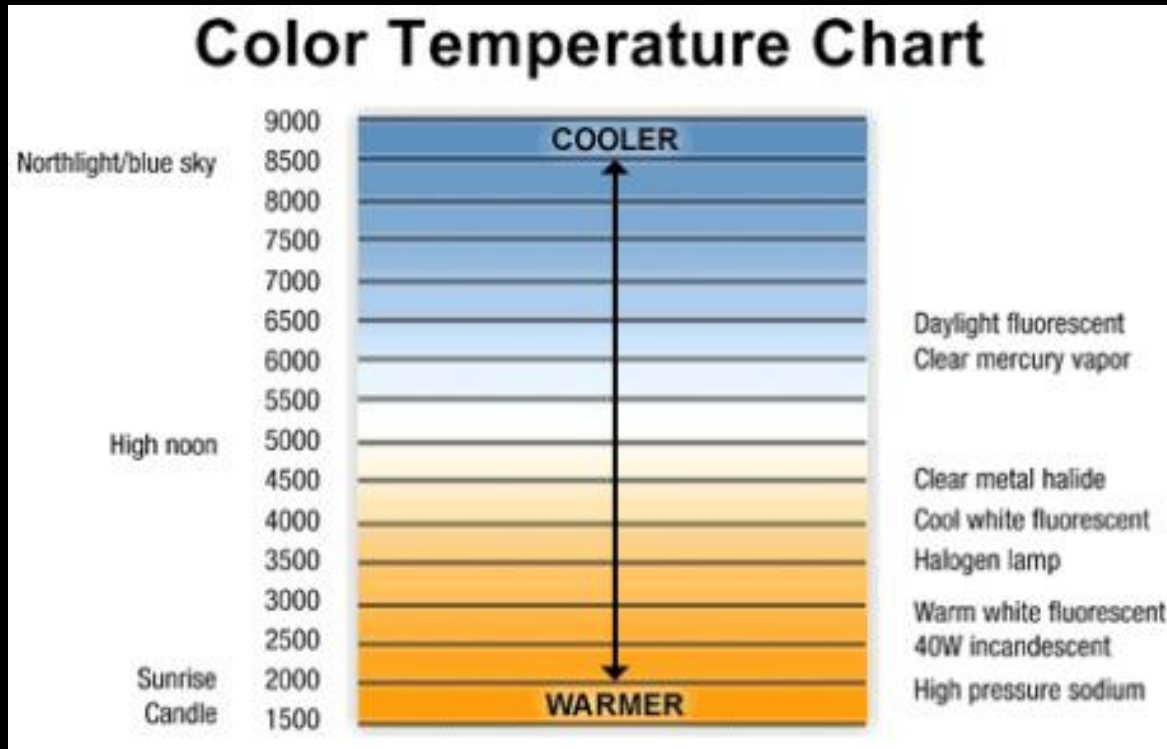


- 3000 Kelvin



- 4000 Kelvin

# LED Color Temperature Facts



# 3000 Kelvin Temperature

- Decreased blue light wavelength
- Warmer color temperature closer to HPS
- Recommended by the International Dark Sky Association



# Staff Recommendation and next steps

- Install 3000K in residential areas over 4 year period
- Test 3000K & 4000K lights in the parks
- Evaluate return on investment for arterial roadways

