

# DLC Stakeholder Meeting 2015

Aug 4-5 | Washington, DC

DESIGNLIGHTS  
CONSORTIUM

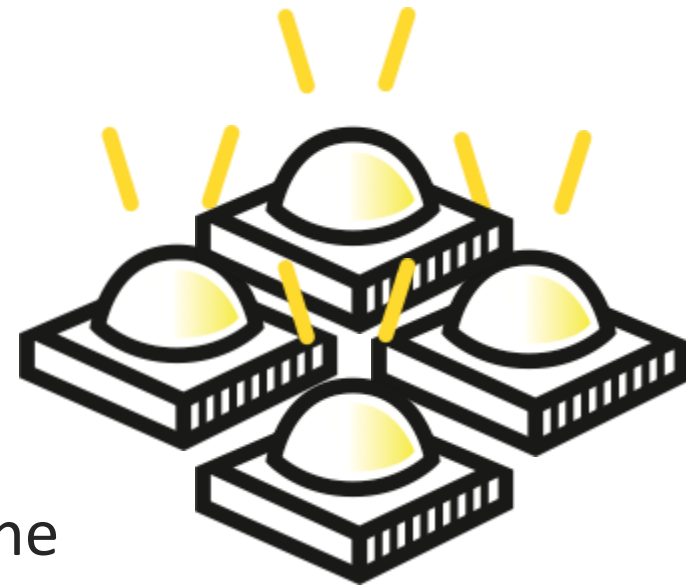
Multiverse by Leo Villareal, National Gallery of Art, Washington, DC

## Scaled Performance Table Methodology

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# Overview: Why are you here?

- What is the scaled performance table?
- Understanding its importance
- Scaling methodology
- Completing the scaled performance table
- Discussion of the TR version 3.0 additions
- Goal: Develop an understanding of the scaled performance table to ensure thorough completion and minimize application review delays

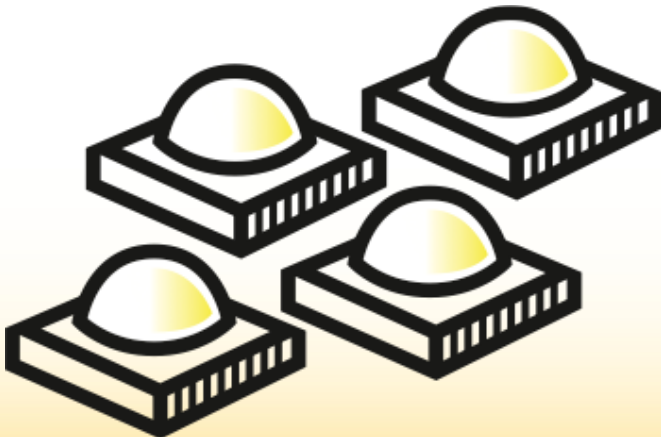






# What is the scaled performance table?

- Located on the second tab of the application form
- Provides a performance overview of the products being submitted
- Documents additional details for each product in the application
- Used by the review staff to calculate application fees



# Importance

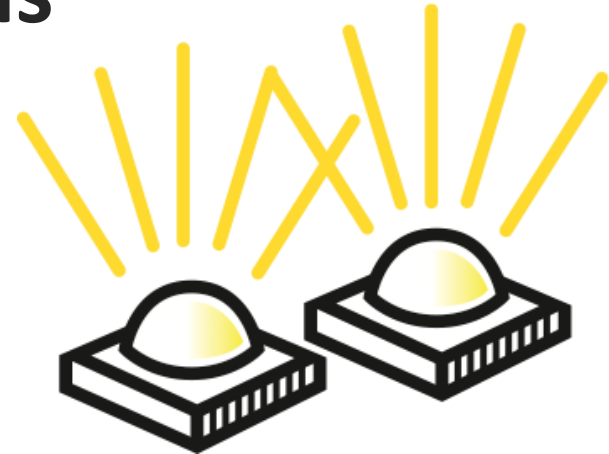
- Understanding the product family
  - Expected performance
  - Worst-case models
- Fee calculation
  - Independent test reports for worst-case models
  - Multiple primary use designations
  - Premium classification fees
- Data is listed on the QPL
  - Review scaling methodology to ensure accuracy

# Scaling Methodology

- Identify key variations and how they affect product performance
- Determine the worst-case models
- Conduct preliminary testing to understand product performance
- Develop methodology that can be applied to non-tested members in the product family
- Be able to explain/support your scaling methodology

# Identify worst-case models

- Worst-case metrics to focus on:
  - Worst-case light output
  - Worst-case efficacy
  - Worst-case thermals
  - Worst-case electricals; loading conditions (PF, THD)
- Identifying worst-case models will form a “bracket” around the family that enables us to analyze the product performance of product families with reduced testing burden on manufacturers
- Understanding the performance of the worst-case models will set the baseline for your scaling methodology





# Worst-case light output

- Product variables that affect light output
  - Number of LEDs (smaller quantity is worse)
  - Drive current (lower is worse)
  - CCT (lower is worse)
  - Optical efficiencies (which is least efficient?)
  - Color Rendering Index (CRI) (higher is worse)
  - Thermal conditions (hotter is worse)

# Worst-case efficacy

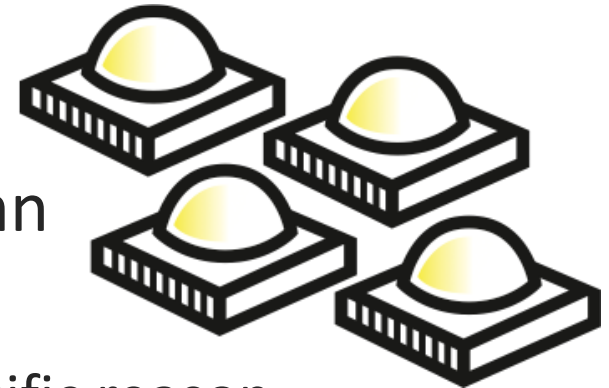
- Product variable that affect efficacy
  - CCT (lower is worse)
  - Thermal conditions (hotter is worse)
  - Optical efficiencies (which is least efficient?)
  - Drive current (higher is worse)
  - Loading conditions (lower is worse)
  - CRI (higher is worse)

# Worst-case thermal environment

- Product variables that affect the thermal environment
  - Number of LEDs (larger quantity is worse)
  - Internal volume (smaller is worse)
  - Drive current (higher is worse)
  - CCT (lower is worse)
  - CRI (higher is worse)
  - Optical efficiencies (which is least efficient?)
  - Proximity of other heat sources? (e.g., driver)

# How to complete the scaled performance table

- Read the provided instructions
- Complete every applicable column in the scaled performance table
  - Everything is being asked for a specific reason
- Make sure that every model you wish to submit is included in the scaled performance table
  - Models not included will not be considered in the application
- The more information you provide, the better
- Please contact us with any questions you have about the scaled performance table



# TR version 3.0 additions

- General application column
- Primary use/ specialty designation
  - Extremely important if you wish to submit under multiple primary uses within the same application
- Classification
  - If you want to be considered in the standard or premium classification, it must be noted in the scaled performance table
- Housing variation(s)
- Driver model number
- Integral controls
  - Must be provided for premium classification or if you want to have it listed on the QPL

**Thank you!**

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