



STAKEHOLDER MEETING 2018

July 9 - 11 • Boston, MA

Program Update: Surveillance Testing

Speakers



Brady Nemeth
*Program Compliance
Manager, DLC*

Agenda

- Program overview
 - Existing policy
- Policy Revision
 - Major changes
 - Summary of comments
- Results
 - Data from rounds 1 and 2
 - Key takeaways



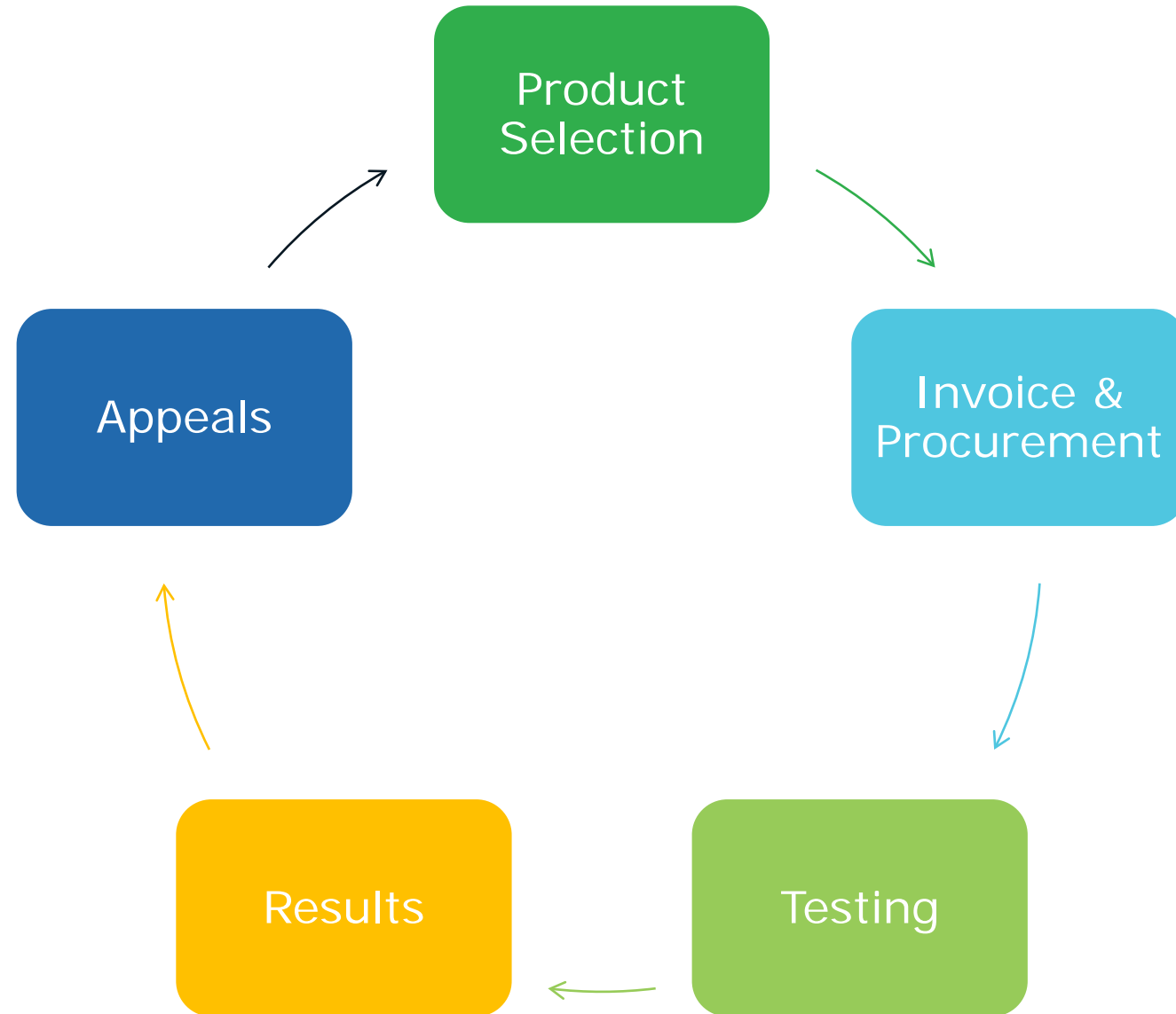


Program Overview

Goal

*"The DLC Surveillance Testing Program actively monitors the validity of data and other information submitted to the DLC during qualification in order to **protect the value of the QPL for all stakeholders.**"*





Product Selection

1. Products whose performance is exceptionally low
2. Products whose performance is exceptionally high
3. Products with past application issues
4. Complaints from stakeholders, including DLC Members
5. Products of manufacturers that have chosen not to participate in previous rounds
6. Products of manufacturers that have a history of failing results from previous rounds
- 7. Products randomly selected from the QPL**

Product Testing/Evaluation

- Tested in integrating sphere or goniophotometer based on the reason it was selected
- Retrofits/lamps may be tested in any approved housing
 - **Manufacturer may provide the preferred (approved) housing at their own expense**
- Products qualified using allowances will have the allowance applied first, followed by the tolerance

Proposed Requirements

Table 1

Metric	Tolerance
Light Output	- 10%
Efficacy	- 3%
CCT	+/- 1 ANSI bin from qualification
CRI	- 2 points
Power Factor	- 3%
THD	+ 5%
Zonal Lumens	Refer to TRT
NEMA Classification	None

Table 2

Metric	Tolerance
Light Output	- 9.6%
System Wattage	+ 12.7%
CRI	- 5.9%

Dropped

- CCT
- Power Factor
- THD
- Zonal Lumens
- NEMA Classification

Appeals

Appeals must include sufficient detail for questioning the validity of the test results.

Some appeals won't be accepted:

- Manufacturer promising change to a supplier's process
- Showing a different set of test data without technical justification
- Using the data from qualification for justification
- Stating that the wrong product was sent for testing

De-listing/Re-listing

De-Listing Products

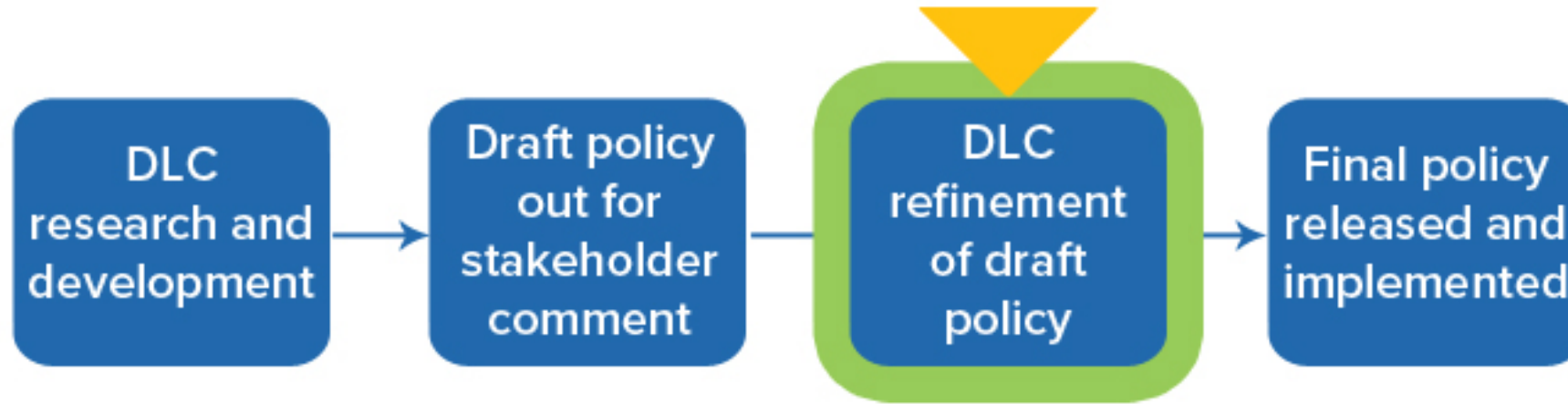
Restructuring of Table 1 and Table 2 streamlines de-listing penalties

Re-Listing Products

Reason for De-Listing	Action required
Declined selection of product (or unresponsive)	<ul style="list-style-type: none"> • 6 month waiting period • New application (regular fees apply)
Product(s) failed Table 1 or Table 2	<ul style="list-style-type: none"> • New application (regular fees apply) • New test reports • New model numbers

Policy Revision





Stakeholder Input Process

- Three week comment period (ended July 3)
- Across the board revision
- Timed between rounds

Policy Revision: Selection and Procurement

- **Products will typically be procured directly from the manufacturer**
- Maximum of three selections in a calendar year
- **Expectation of product procurement within eight weeks**
- The DLC may select products randomly
- Increased guidance to manufacturers about voluntarily de-listing products from the QPL

Policy Revision: Testing and Evaluation

- **Table 2 only includes light output, system wattage, and CRI**
- Manufacturers may provide a preferred listed reference housing at their own cost
- Clarification on how tolerances work with allowances
- “Dual Mode” products (UL Type A and B) will be tested using a ballast
- **A product must fall within +/- 1 ANSI bin from qualification for CCT to be considered compliant with Table 1**

Policy Revision: Consequences and Appeals

- **Clarified intent and limitations of consequences from the program**
- Specified consequences for non-compliance outside of product testing
- Guidance on re-listing products
- Provided examples of inadequate appeals

Policy Revision: Safety Coverage

- New section addressing the safety coverage requirement
 - Change resulting from the SSL V4.3 Technical Requirements changes.



Industry Comments

- DLC should consider a separate pathway (other than declining) for products that are being discontinued
- +/- 1 ANSI bin for CCT in Table 1 was too wide of a tolerance
- All contacts listed for an organization should be contacted for every selection
- Longer allowable timelines for responding
- Information to members should be limited

Industry Comments

- Concern about golden samples
- DLC should consider the original test lab of non-compliant products
- Visibility in Surveillance Testing results
- Efficacy tolerances should be made wider
 - Efficacy tolerances should be stricter (with a Table 2 requirement)
- *"The purpose of Surveillance Testing is only to make sure products meet the requirements"*
- Some comments fell outside the scope of this policy

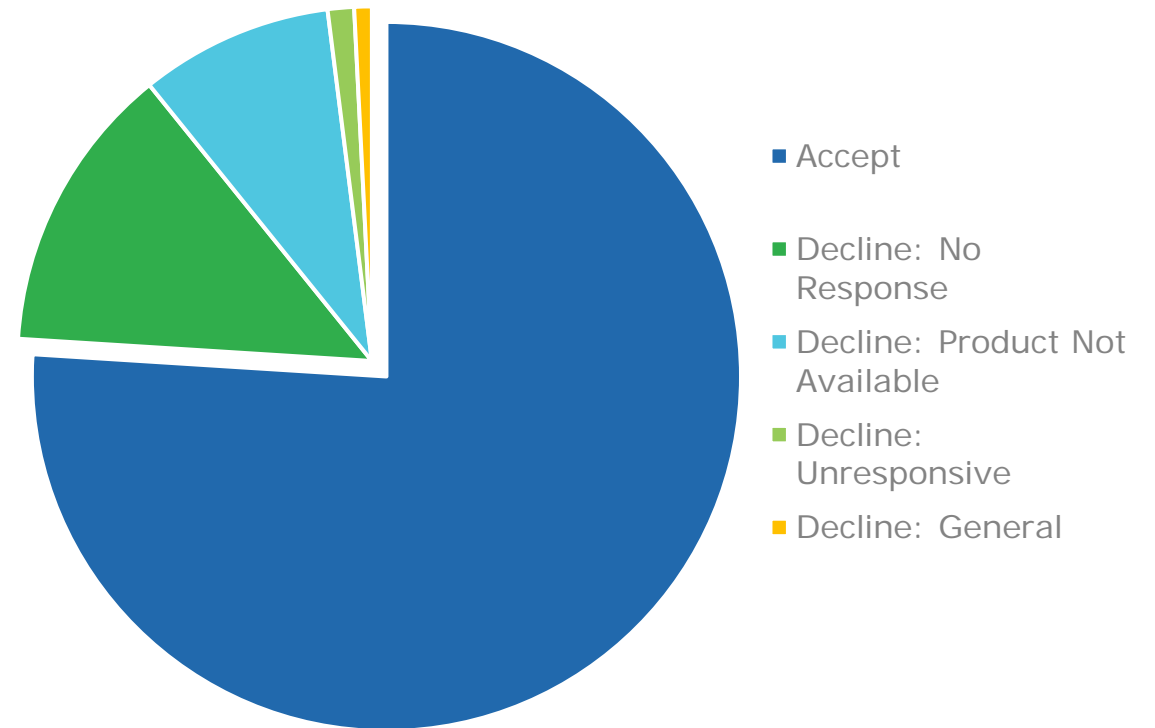


Program Results

(...so far)

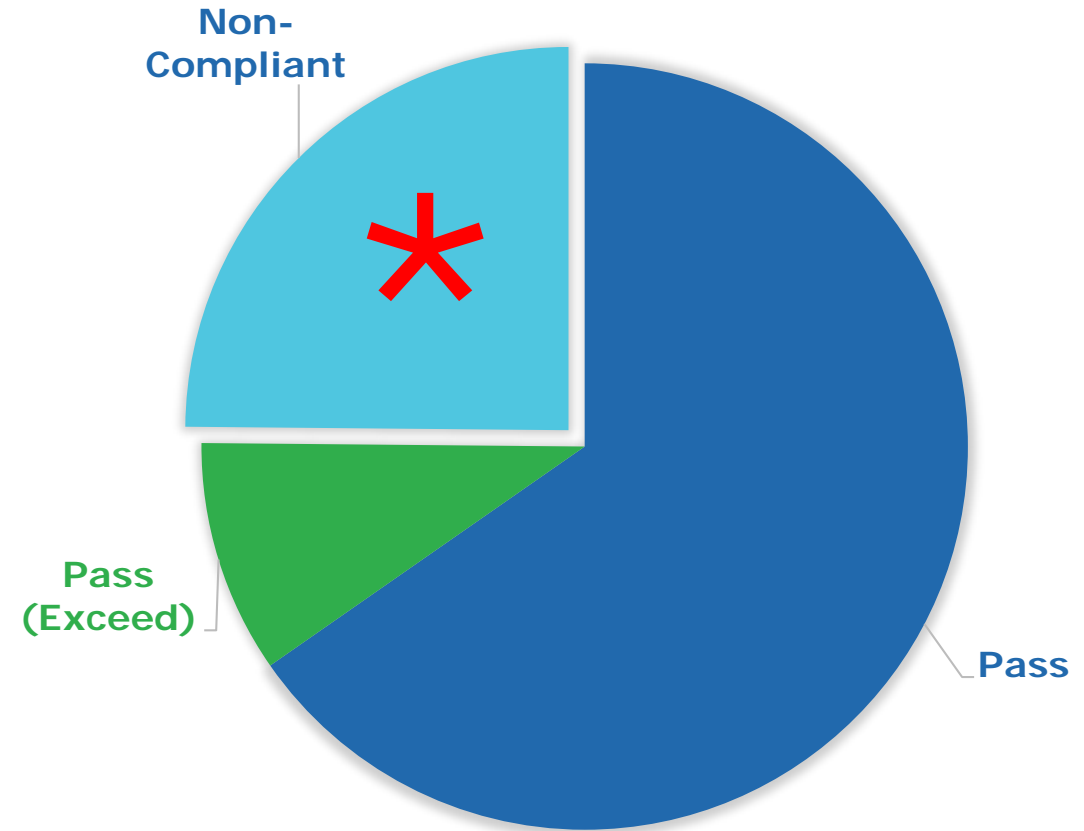
Data: Accept/Decline

- Most manufacturers decline (by default) by being unresponsive
- Many products may no longer be sold/manufactured
- A select few accept the selection, but stop communicating after that



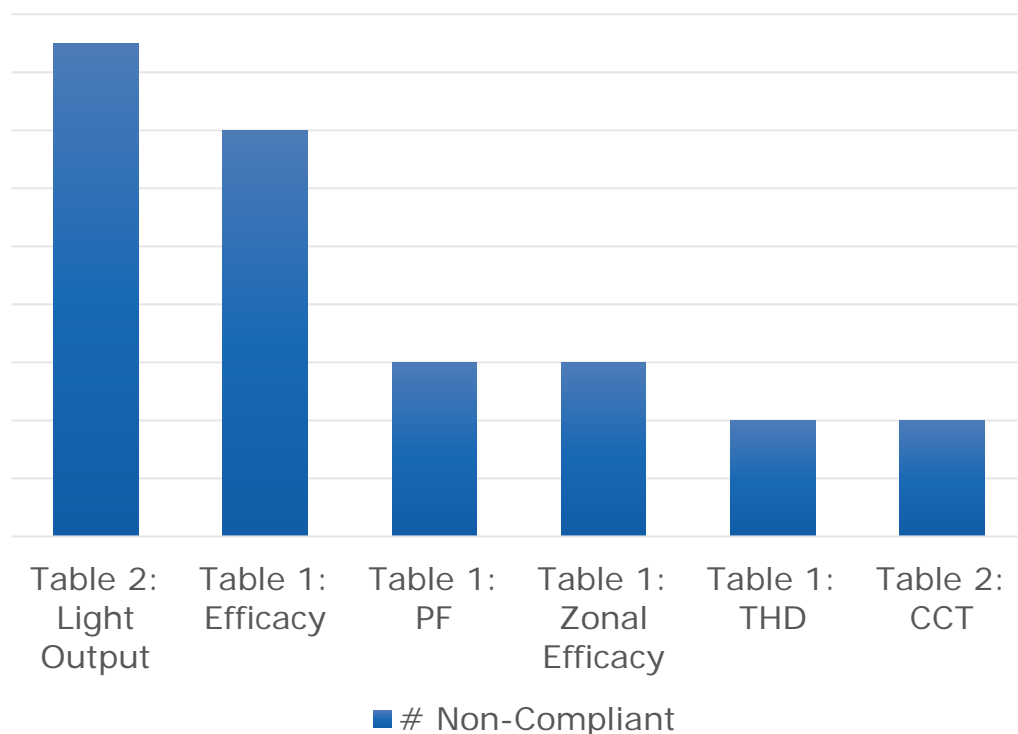
Data: Pass/Fail

- A non-compliant product may still meet the requirements
 - Products might be updated and remain on the QPL
- A failure indicates that (at least) one metric did not meet Table 1 or Table 2



Data: Top 6 Reasons for Failure

Non-Compliant Products



- **#1:** Light output differing significantly from QPL values
- **#2:** Efficacy does not meet the Technical Requirements
- No clear pattern beyond top 2
- Table 2 CCT requirement is being removed in place of stronger Table 1 requirement

Accuracy of QPL*

Tested Data				Rated/Reported Data			
	Light Output	Wattage	Efficacy		Light Output	Wattage	Efficacy
Average	-0.5%	0.4%	-1.1%		0.2%	0.4%	-0.4%
Median	-1.6%	0.0%	-0.7%		-0.2%	-0.3%	0.9%

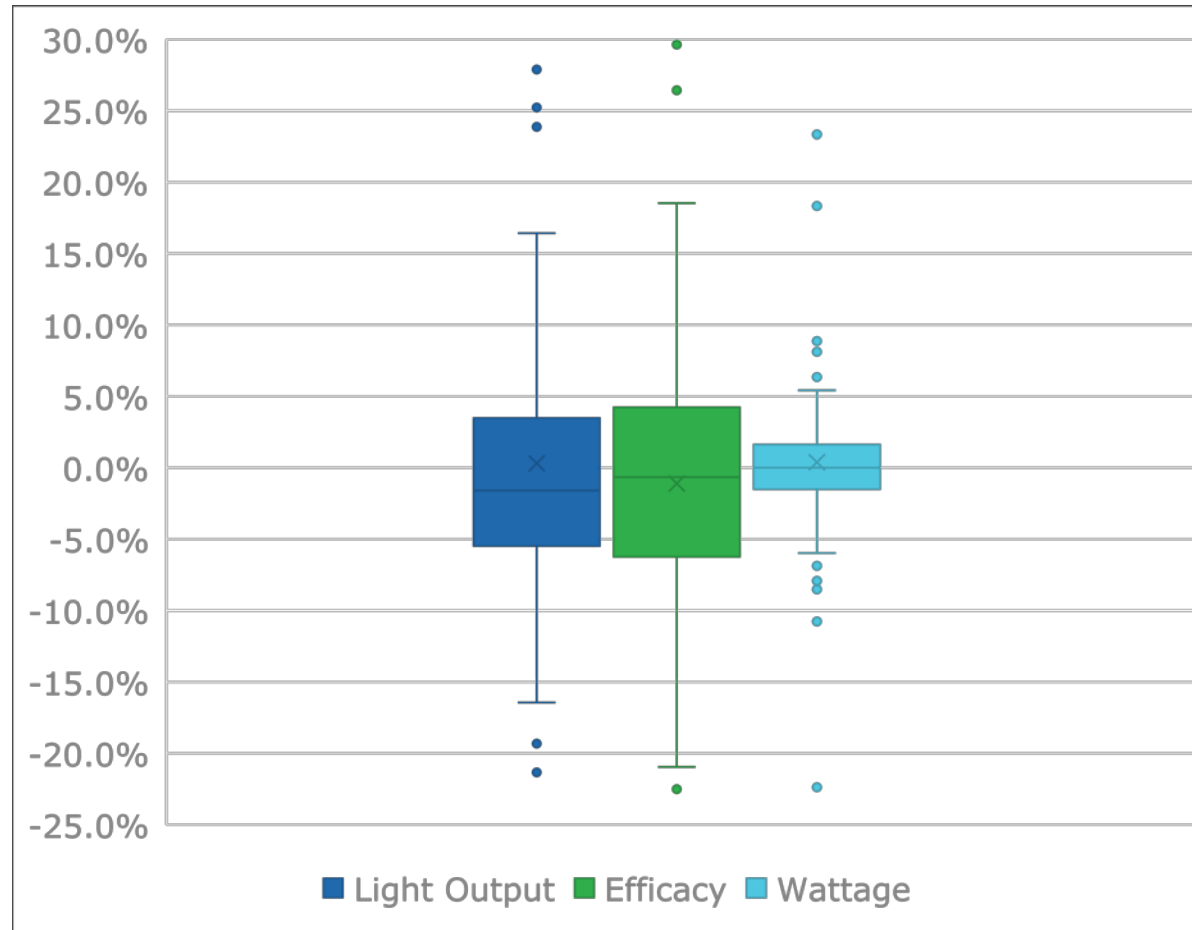
* Products were not derived from a random sample of the QPL

Percent Change from Qualification*

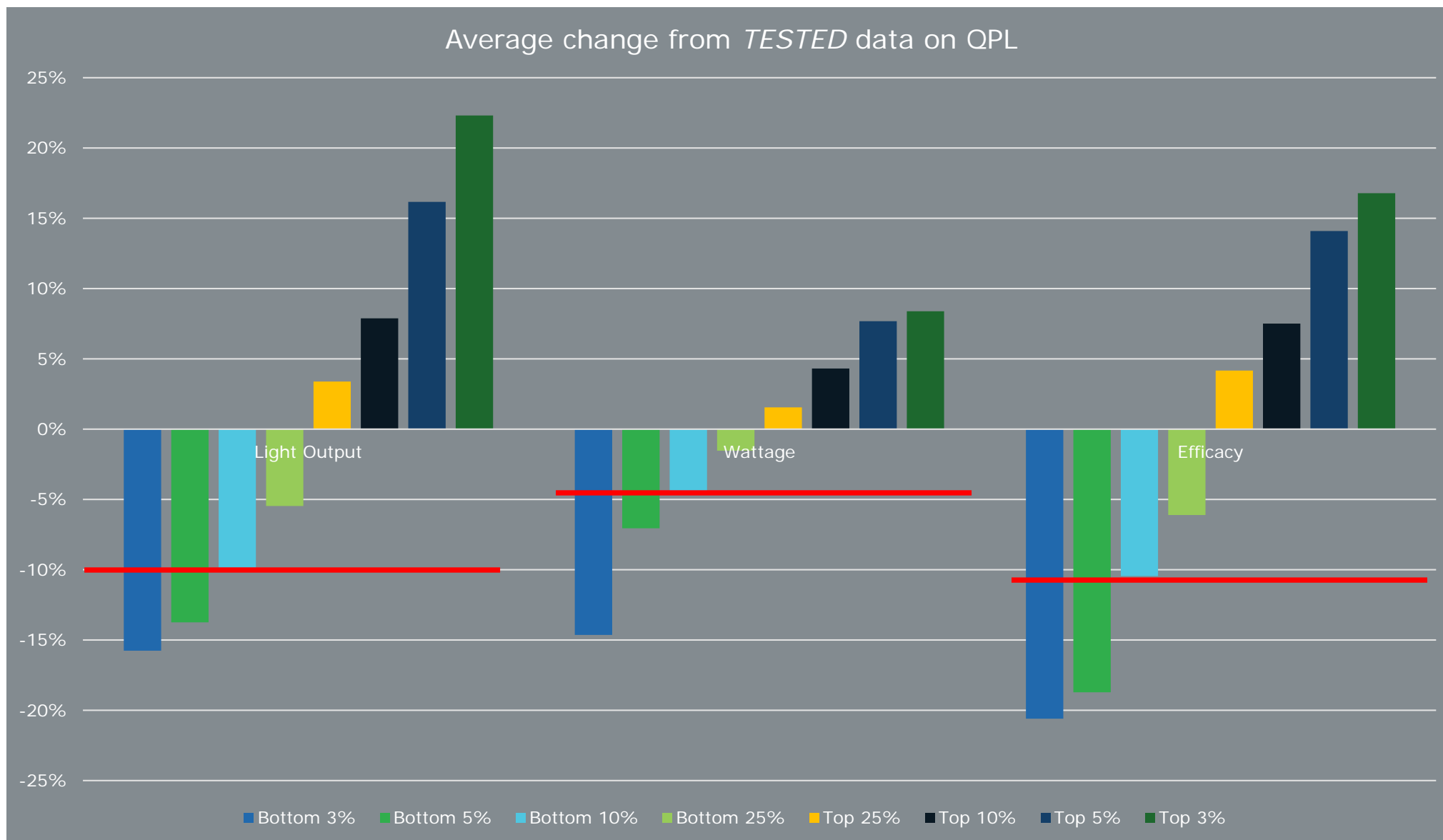
Percentile	Light Output	Efficacy	Wattage
Top 3%	22.3%	16.8%	-8.4%
Top 5%	16.2%	14.1%	-7.7%
Top 10%	7.9%	7.5%	-4.3%
Top 25%	3.4%	4.2%	-1.5%
Bottom 25%	-5.5%	-6.1%	1.5%
Bottom 10%	-9.8%	-10.5%	4.4%
Bottom 5%	-13.7%	-18.7%	7.1%
Bottom 3%	-15.8%	-20.6%	14.6%

* Products were not derived from a random sample of the QPL

Percent Change from Qualification*

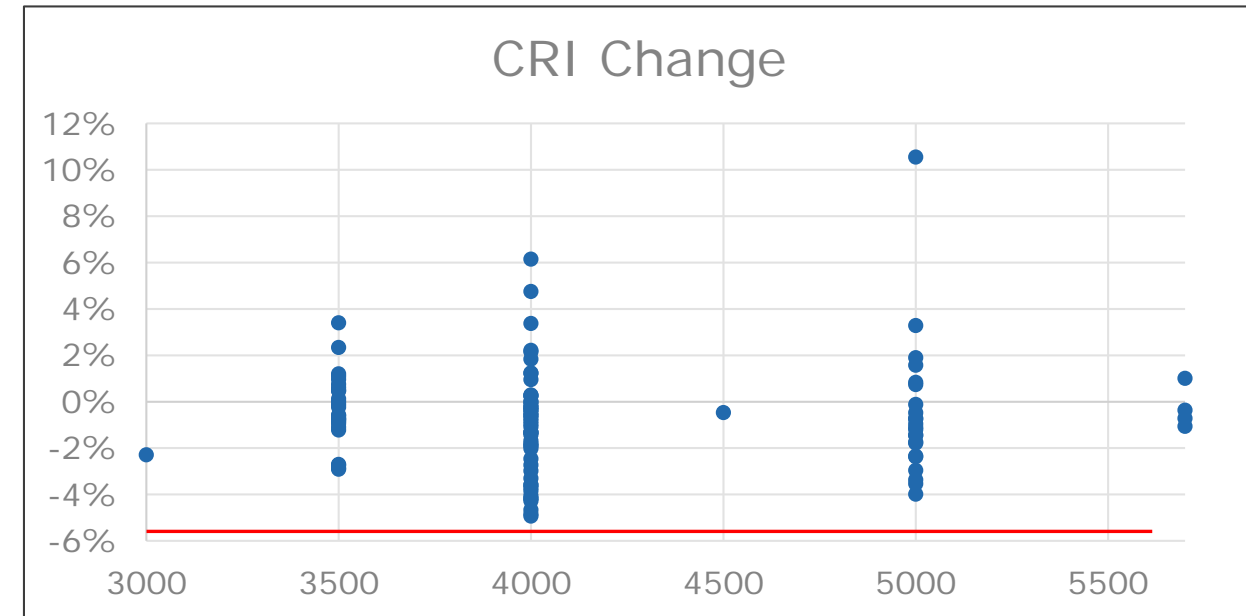
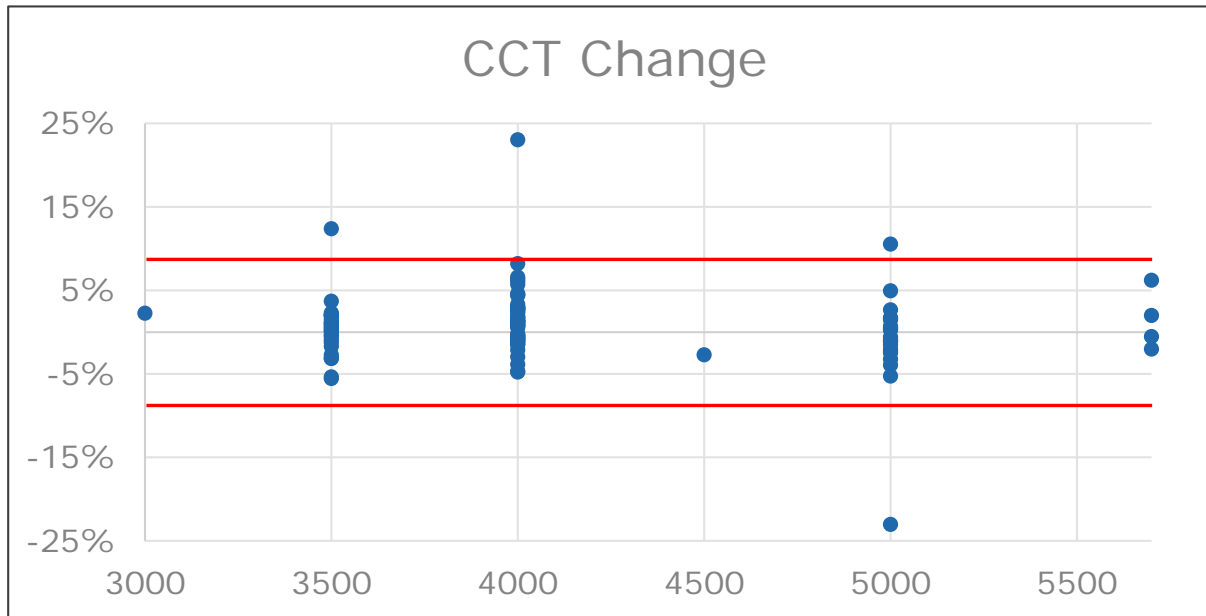


* Products were not derived from of a random sample of the QPL



Accuracy of QPL: Color*

	CCT	CCT	CRI	CRI
Average	0.7%	25K	-0.7%	-0.6



* Products were not derived from a random sample of the QPL

Key Takeaways

1. The data on the QPL, as a whole, is *VERY* reliable
2. There is still work to be done weeding out the outliers
3. The DLC will use this data to inform future requirements





Questions?



STAKEHOLDER MEETING 2018

July 9 - 11 • Boston, MA

Thank you!