



Energy · Quality · ControllabilitySM

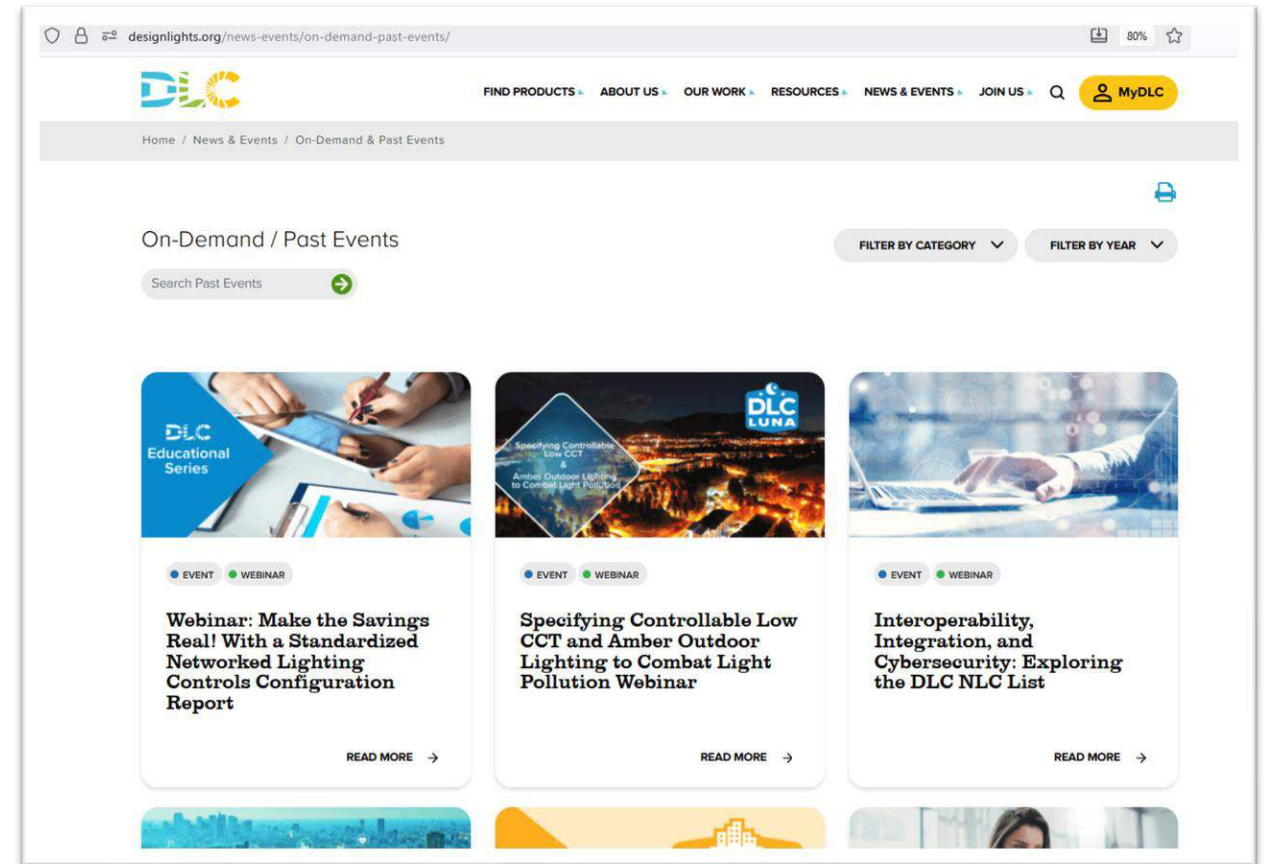
How to Submit for SSL V6.0 & LUNA V2.0

Update Pathways,
Walkthrough, and Early
Lessons Learned

• Date

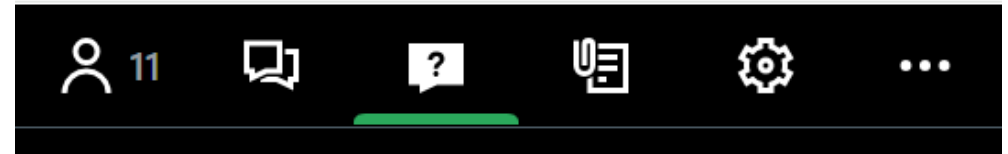
Welcome!

- **Slides and recorded webinar will be posted** on the *DLC News & Events* page at <https://designlights.org> shortly after today's presentation
- All attendees are automatically muted



Webinar Orientation

- Questions will be held until the end during a live Q&A
 - Use the Question pane (not Chat) to submit for Q&A





The DesignLights Consortium is an independent, nonprofit organization providing decision makers with data and resources on quality lighting, controls, and integrated building systems to reduce energy, carbon, and light pollution.

Presenters

Q&A



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Operations*



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*Senior Technical
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Webinar Objectives



Agenda

- Introduction and Overview
- Update Pathways
- Simplified Update to V6.0
 - Walkthrough
 - Policy and detail clarifications
- Potential V5.1 Updates to support Simplified Update Process
- Traditional Update to V6.0
- Questions!

A photograph of a modern office building at night, viewed through a grid of windows. The interior lights are on, revealing various office spaces, desks, and people working. A large, white, diamond-shaped graphic with a yellow border is overlaid on the left side of the image.

Introduction & Overview

SSL V6.0 & LUNA V2.0 Goals



Advance energy efficiency

and support decarbonization through increased efficacy thresholds and controls requirements.



Strengthen the SSL QPL

by expanding eligibility to support sustainability, lighting innovation, and flexible installation practices.



Drive adoption of controls

through compatibility-based product selection from SSL and NLC QPLs.



Mitigate light pollution

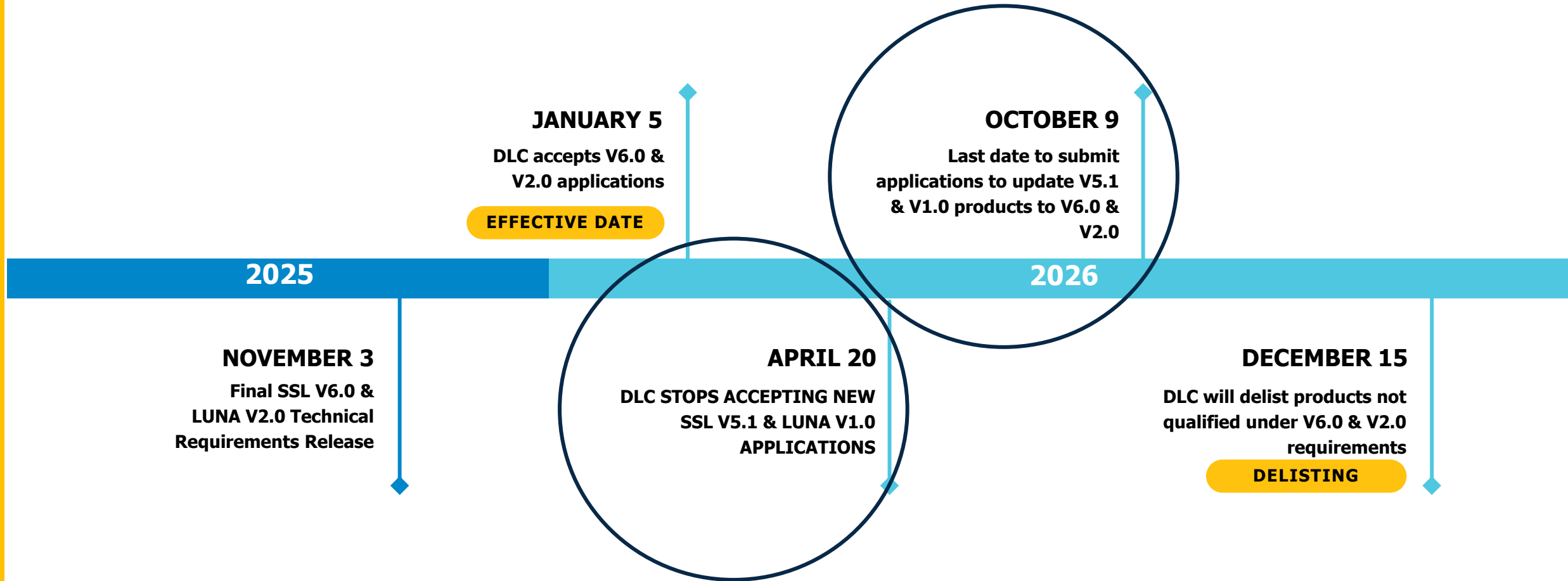
by promoting responsible outdoor lighting options.

Technical Requirements Document

- [SSL V6.0 & LUNA V2.0 TR](#)
comprehensive, revises and builds upon:
 - SSL V5.1 Technical Requirements
 - LUNA V1.0 Technical Requirements
 - All standalone SSL Technical Requirement policies (e.g. Technical Requirement Tables, Warranty, Lifetime, Testing constraints, Power quality and more)



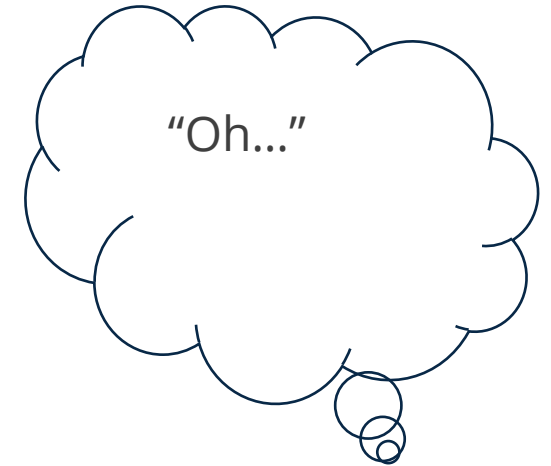
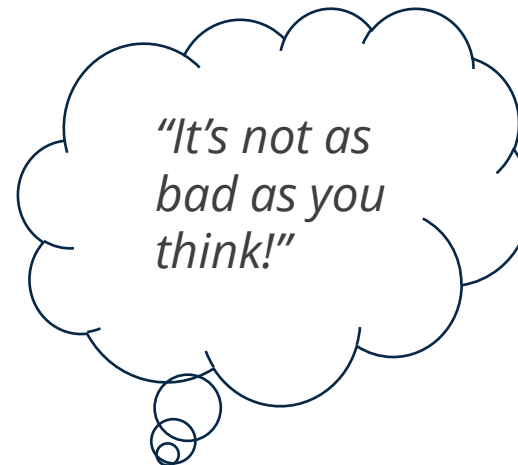
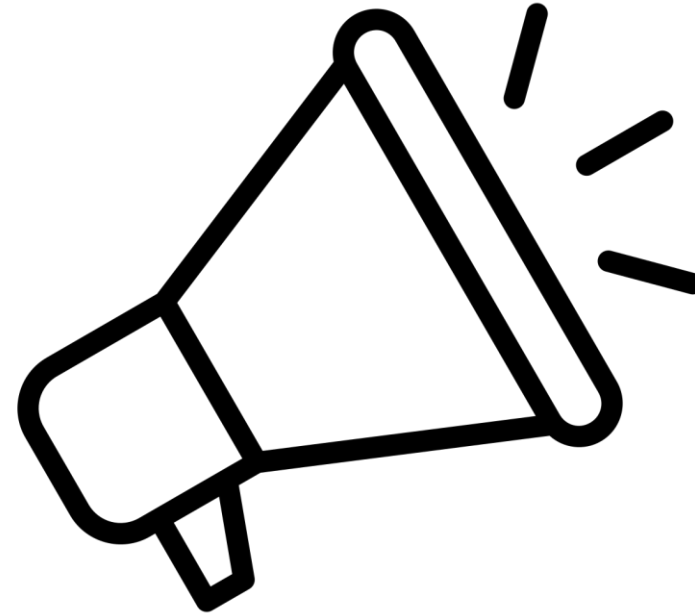
Timeline Details



The First Big Question

Q: How can I know which of my products need to be updated to V6.0?

A. All of them.





Update Pathways

Update Pathways

Simplified!

- Products have not changed since previous qualification, and
- Products demonstrate they meet V6.0 requirements based on existing QPL data

V5.1 Updates, Then Simplified!

- Products have not changed since previous qualification
- Product data does not currently show compliance with V6.0, but current data is out of date, and could be updated

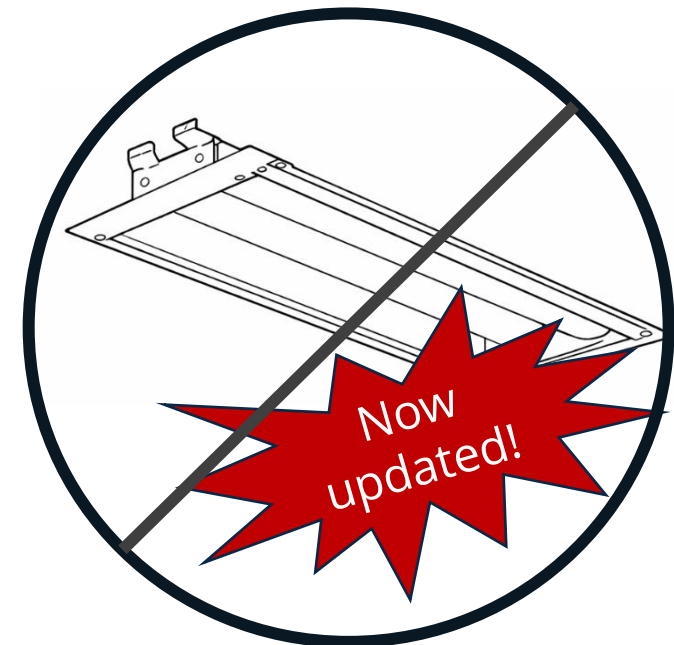
“Traditional” Updates

- Products have changed since previous qualification, and/or
- Product data does not meet V6.0 requirements because actual performance is not in line with V6.0 requirements

Simplified Updates

Simplified Update Pathway

- For products who's documented performance on the DLC SSL QPL already meets the V6.0 Technical Requirements, and
- Which have not changed in design or performance since previous qualification



Simplified Update Pathway, Continued

Product Eligibility:

- Products with test data (“parent” products): both Tested and Reported data must meet V6.0 Requirements
- Products without test data (“child” products): Reported data performance is sufficient to demonstrate compliance

For product groups (families):

- Child products are eligible for simplified update, and may update to V6.0 *even if* parent(s) product(s) are not and do not.

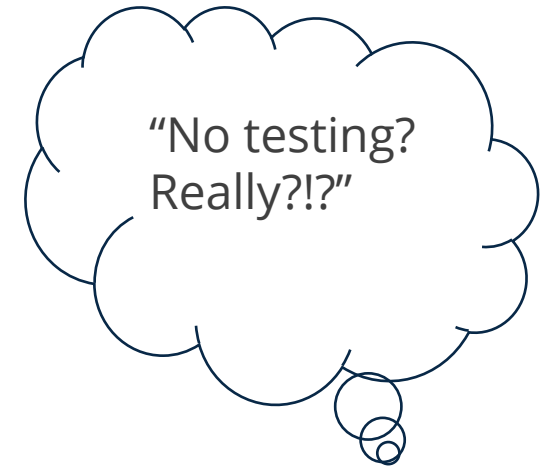
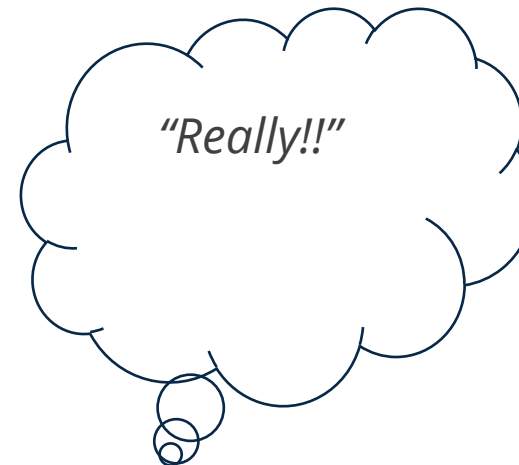
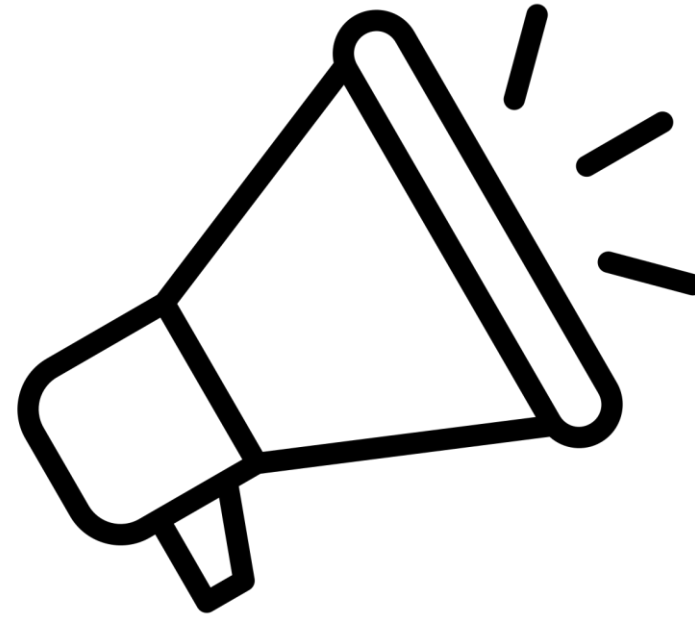
The Second Big Question

Q: How much testing do I need to update products to V6.0?

A. None. (Within Simplified Update)

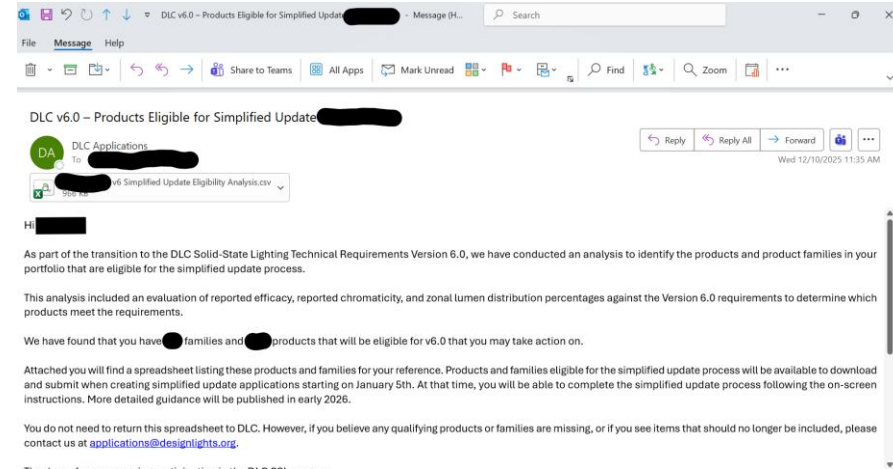
Fun fact:

>75% of V5.1 products are eligible for Simplified Update



Simplified Update Pathway – Notifications

- The DLC conducting analysis of products listed to V5.1 weekly
- Outreach to all manufacturers* with details:
 - In December
 - Follow-ups
 - In May
 - In September



Manufacturer							
	A	B	C	D	E	F	G
1	Manufacturer	Family Name	Product ID	Eligible for	Reason Product Doesn't Meet	Model Number	Category
28				Yes			Outdoor Luminaires
29				Yes			Outdoor Luminaires
30				Yes			Outdoor Luminaires
31				Yes			Outdoor Luminaires
32				Yes			Outdoor Luminaires
33				Yes			Outdoor Luminaires
34				Yes			Outdoor Luminaires
35				Yes			Outdoor Luminaires
36				No	Does not Meet Efficacy Requirement		Outdoor Luminaires
37				No	Does not Meet Efficacy Requirement		Outdoor Luminaires
38				No	Does not Meet Efficacy Requirement		Outdoor Luminaires
39				No	Does not Meet Efficacy Requirement		Outdoor Luminaires
40				No	Does not Meet Efficacy Requirement		Outdoor Luminaires

Simplified Update Pathway – Analysis

- Simplified Update Eligibility-Analysis
 - Based on published QPL data
 - Compared directly against the V6.0 threshold requirements
 - Therefore, can analyze your own products, or
 - Labs, etc. can directly analyze their clients' products
- Data access and support offerings:
api@designlights.org



Simplified Update Pathway – Application Portal

- Analysis feeds pre-populated application forms in Portal
- Updated weekly to capture new V5.1 product listings, as well as updates to V5.1 listed products

The screenshot shows the 'Simplified V6 Update - SSL' application portal. A blue arrow points from a thought bubble saying 'Really!...' to the 'Pre-Filled Product Families (OEM)' section. Another thought bubble says '“Prefilled? Really?”'.

Pre-Filled Product Families (OEM)
These families have pre-filled data available for OEM simplified updates. You can download an Excel file or create a new simplified update application.

Manufacturer	Family Name	Actions
DLC	CMBDZX	Download Excel Create Application
DLC	DMD/VR	Download Excel Create Application
DLC	FLBDTY	Download Excel Create Application
DLC	NTP/BG	Download Excel Create Application
DLC	VBYC/D	Download Excel Create Application
DLC	ZNMSCP	Download Excel Create Application

Demonstration/Walk-through

Simplified Update Tips, Summary

- Policies Determine Eligibility
 - No tolerances applied to Reported Data*
 - Allowances *are* applied to Reported Efficacy, if eligible
- Do not include new products
 - Use “Associated Product ID” column for splitting out needed Standard products due to Controls
- Complete new information
 - Controls Options Code(s) – from model number!
 - Controls Options Table – required for all submissions! Include all options (and combinations)!
 - Field Adjustable Details – lowest to highest
 - Spec sheets (or other documentation) must clearly support new reported information
- If you believe there are errors: applications@designlights.org

V5.1 Updates

To enable groups to then utilize the simplified update pathway

Why V5.1 Updates?

An update to your V5.1 listings may simplify the pathway to V6.0.

- Reported data updates to make products eligible for V6.0
- Adding variations to an existing family group



Reported Data Updates

Q. What is Reported Data?

A. Manufacturer-determined nominal performance assertions, supported by rating methodology ("scaling")

- Reported Data plays a key role in determining qualification, and eligibility for the V6.0 Simplified Update Process
- If reported data currently does not pass V6.0 thresholds, must update
- Two possibilities:
 - Test data associated with products also does not pass V6.0 thresholds: testing is necessary (traditional updates)
 - Test data does pass V6.0 thresholds...

Tolerances

Q. What are Tolerances?

- A. Accommodations to threshold values to account for small discrepancies in the evaluation **test data**, due to small sample sizes, manufacturing variation, and testing uncertainty.

Q. What is Reported Data?

- A. *Manufacturer-determined performance assertions, supported by rating methodology (“scaling”)*

Under V6.0, Tolerances are NOT applied to Reported Data

Tolerances only applicable to tested data



Table 19: Tolerances

Performance Metric	Product Type	Tolerance
Light Output	All	±10%
Luminaire Efficacy	All	-3%
Color Rendition	All	CIE R_a (CRI): -1 Point CIE R_g : -1 Point IES R_i : -1 Point IES R_g : -1 Point IES $R_{cs,h1}$: +/- 1%
Color Maintenance	All	$\Delta u'v'$: +0.0004 points*
Power Factor	All	-3 percentage points
Total Harmonic Distortion	All	+5 percentage points
Beam Angle	Medium screw-base, Mogul screw-base, Linear replacement lamps, 2G11 lamps	-5°

Reported Data Updates

Updating Reported Data

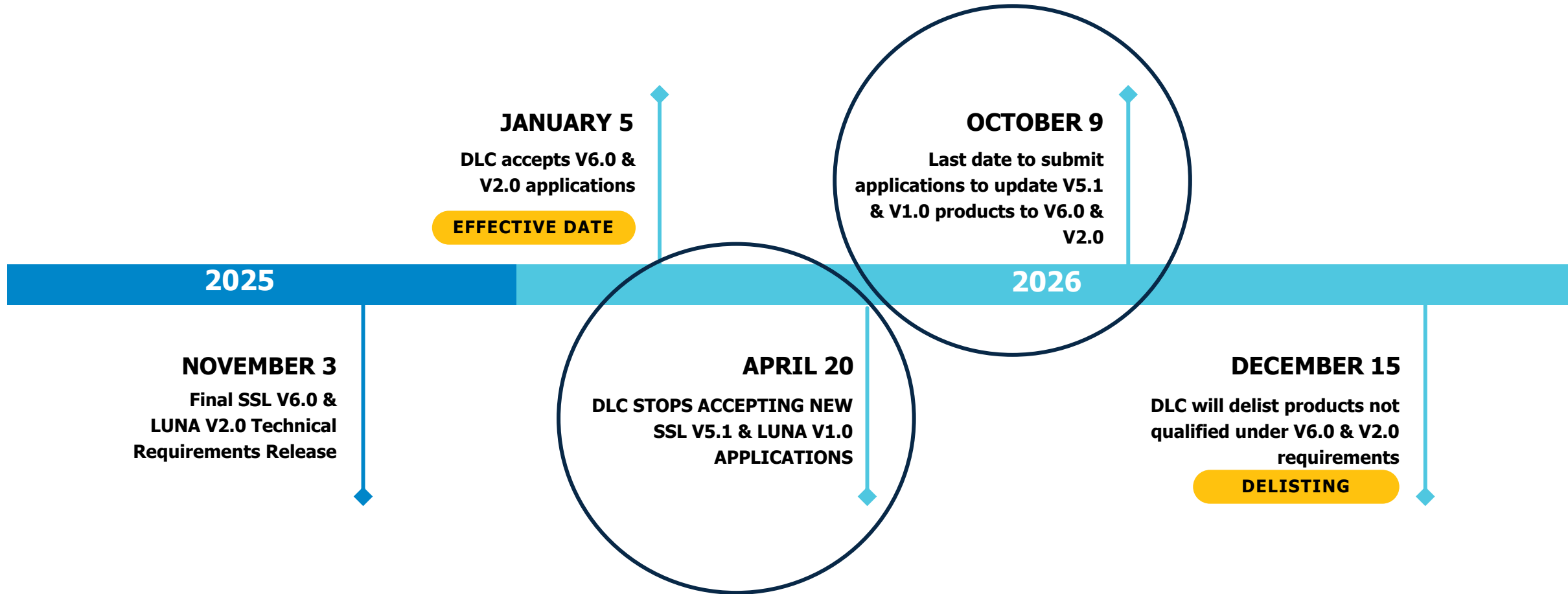
- Test data does pass V6.0 thresholds...
 - Re-examining your rating methodology for determining Reported performance allowed
 - Updates to Reported Data allowed, to align better with test data (demonstrated performance)
 - Submitting a V5.1 Reported Data update (no testing) may enable products to become eligible for V6.0 Simplified Update (also no testing)
-
- Emphasis: products will not be allowed to update via Simplified Update if test data shows they do not meet thresholds.

Adding additional variations to a family group

Adding new models

- Adding variations within V5.1 benchmarks to existing parents. If new variations are not worst-cases, no testing required.
- New V5.1 listings then may update to V6.0 via Simplified Update (if eligible based on performance data).
- Vs.
- Additions or Updates to V6.0 groups require that appropriate parent models be present in V6.0 listings.
- If parents of a given group are NOT updating to V6.0 (due to Simplified Updates), new parents will need testing at time additional members are added to the group

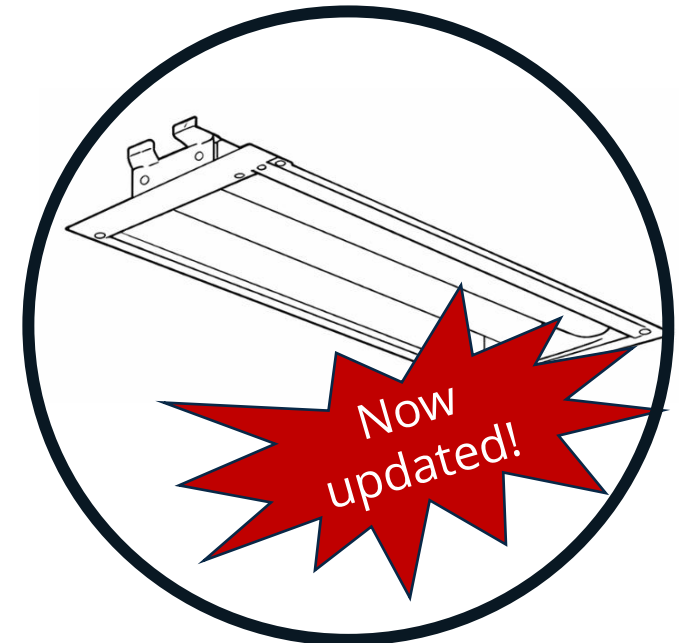
Timeline Details



Traditional Updates

Traditional Update Pathway

- For products who's documented performance on the DLC SSL QPL does *not* meet the V6.0 Technical Requirements, and/or
 - Therefore requiring a change in design and performance to meet the V6.0 thresholds
- For Products which have changed in design or performance since previous qualification (current QPL data not accurate)



Traditional Update Pathway

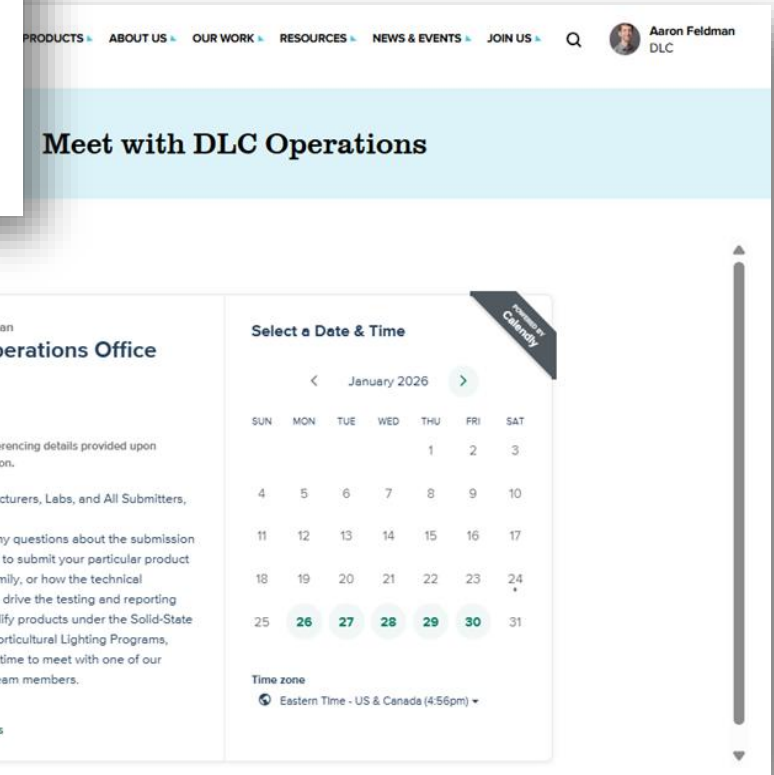
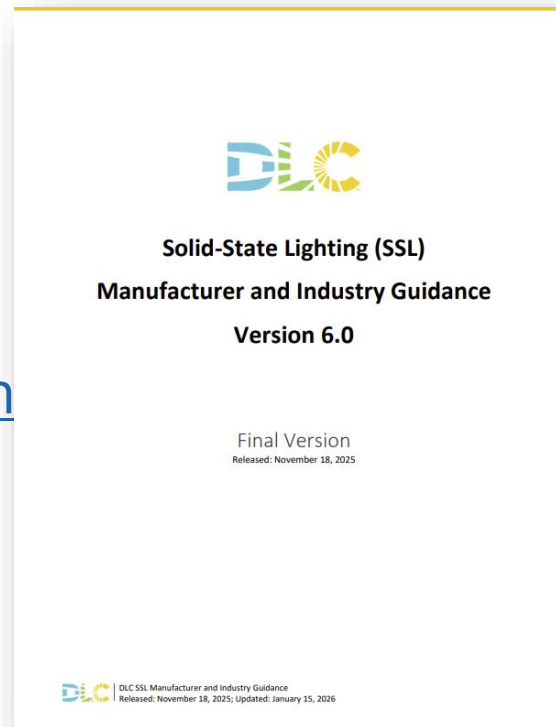
- Same requirements as Updating outside a transition in Technical Requirements
- New design and performance requires new testing to demonstrate improved performance
- Update applications must be accompanied by clear explanation of design changes, and
- New testing of any and all tests where metrics evaluated are affected by design changes

Traditional Update Examples

- New LEDs
 - LM-79/color reports for worst-case light output), efficacy, chromaticity and rendition metrics
 - LM-79/distribution reports for each optical distribution
 - LED ISTMTs/lumen maintenance
 - Electrical/power quality and/or Driver ISTMT (premium) testing may not be required, if driver, driver output/setting, and heat-sinking context has not changed.
- New Drivers
 - LM-79 for worst-case efficacy
 - Electrical/power quality and
 - Driver ISTMT (premium)
- Question?
 - applications@designlights.org
 - [Schedule a meeting](#)

Additional Resources

- [Manufacturer and Industry Guidance](#)
- [Open Office Hours](#)
- Applications@designlights.org
- [Upcoming Webinar – Controls](#)
- Video Tutorials
 - [Image Submission](#)
 - [Simplified Update Eligibility and Policy](#)
 - [Simplified update submission process](#)



Technical Requirements Document

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comprehensive, revises and builds upon:
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Questions! (And Answers!)