Energy · Quality · Controllability℠

SSL V6.0 & LUNA V2.0 Application Submission Webinar

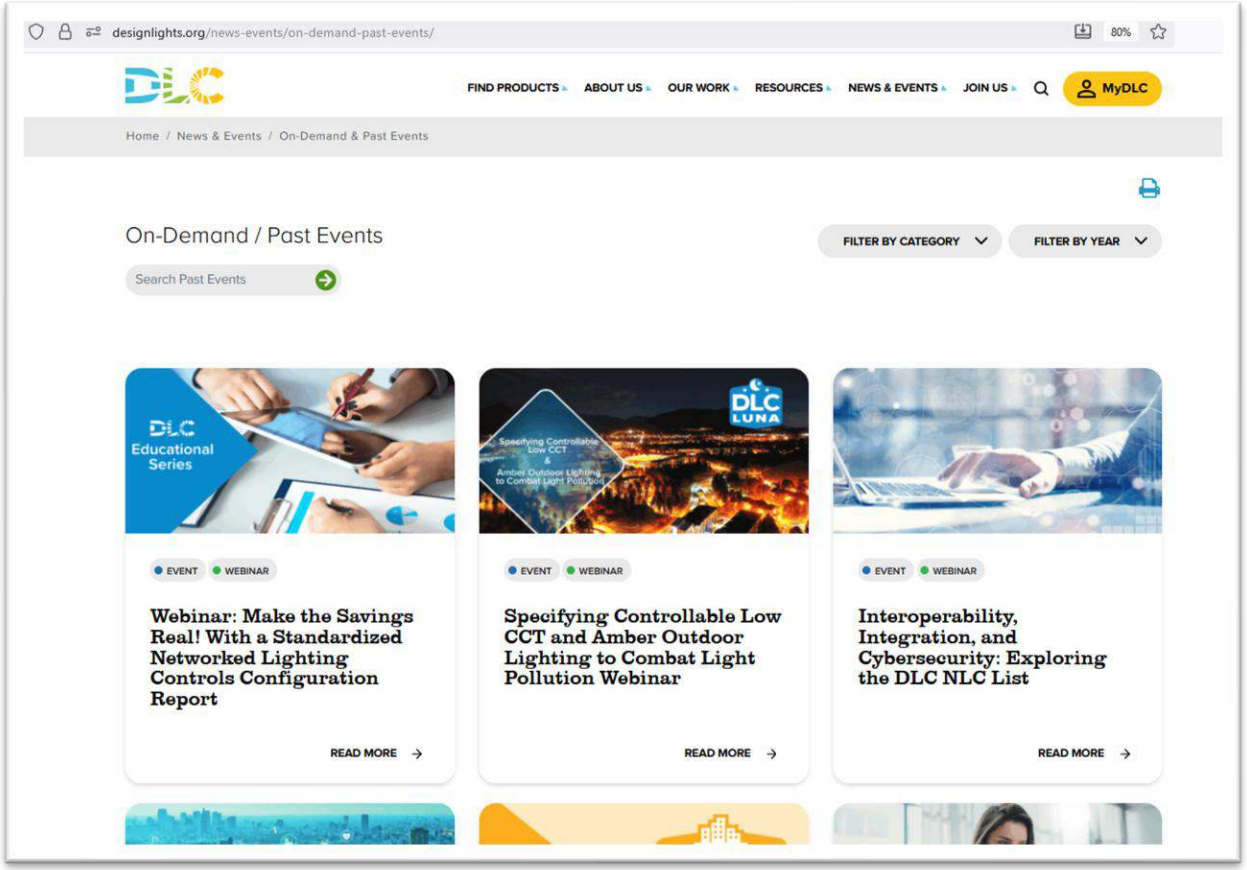
11/18/25

designlights.org

Welcome!

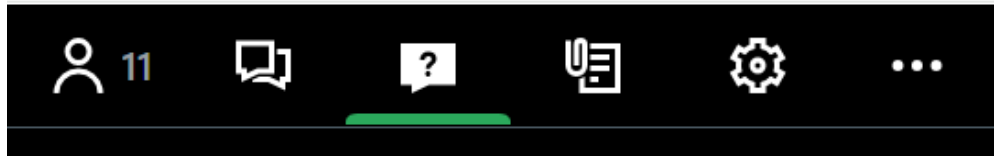
- **Slides and recorded webinar will be posted** on the *DLC News & Events* page at https://designlights.org shortly after today's presentation

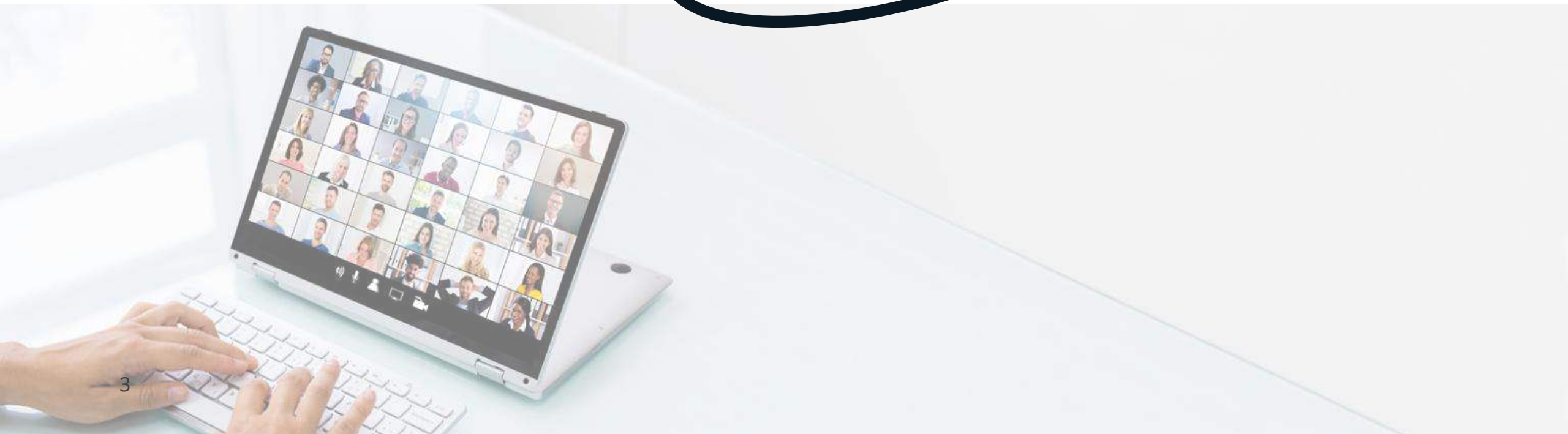
- All attendees are automatically muted



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

Leora Radetsky
Senior Lighting Scientist/ LUNA Program Director

Aaron Feldman
Associate Director of Operations

Jason Jeunnette
Technical Manager

Erin Walling
Applications Operations Manager

Adrian Martin
Senior Technical Analyst

Agenda

- DLC's Role and the Development of SSL V6.0
- Key Dates and Deadlines
- Submission Pathways
- Required Documentation
- Application Process
  - Unchanged submission requirements, e.g. Table 36
- Private Label Process
- Application Fees
- Available and upcoming resources
- Q&A

Webinar Objectives

Background & Value

Why DLC?

Who benefits from the QPLs?

Why do utilities offer lighting rebates?

Why DLC?

Who benefits from the QPLs?

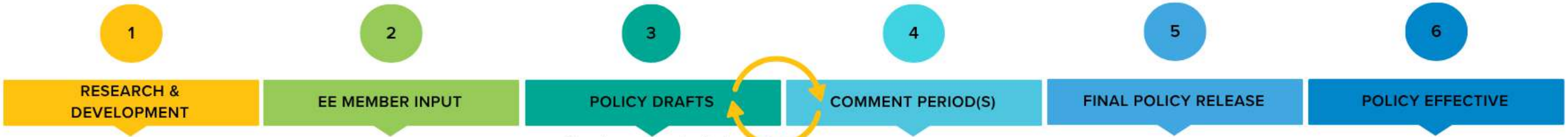
Why do utilities offer lighting rebates?

Why did DLC create new Technical Requirements?

What will change on the SSL/LED QPL?

History: SSL & LUNA Technical Requirements

DLC Stakeholder Input Process



- Data analysis to identify problems to solve
- Market research and interviews industry
- Craft initiatives that serve DLC mission

- Gather input from Energy Efficiency programs
- Determine market impacts

- Create policy drafts based on our research and efficiency program member input

- Release the draft policy to all stakeholders
- Collect comments
- Depending on the complexity, several may be released for additional comment periods

- Revisions made based on all feedback from the comment periods
- Finalize the draft to become official policy
- Release final publicly

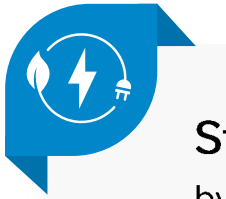
- Final Release will include the date when the policy goes into effect
- All stakeholders have time to understand new requirements
- Awareness of impacts of new policies

Thank you for being part of our consortium

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.

Document Overview

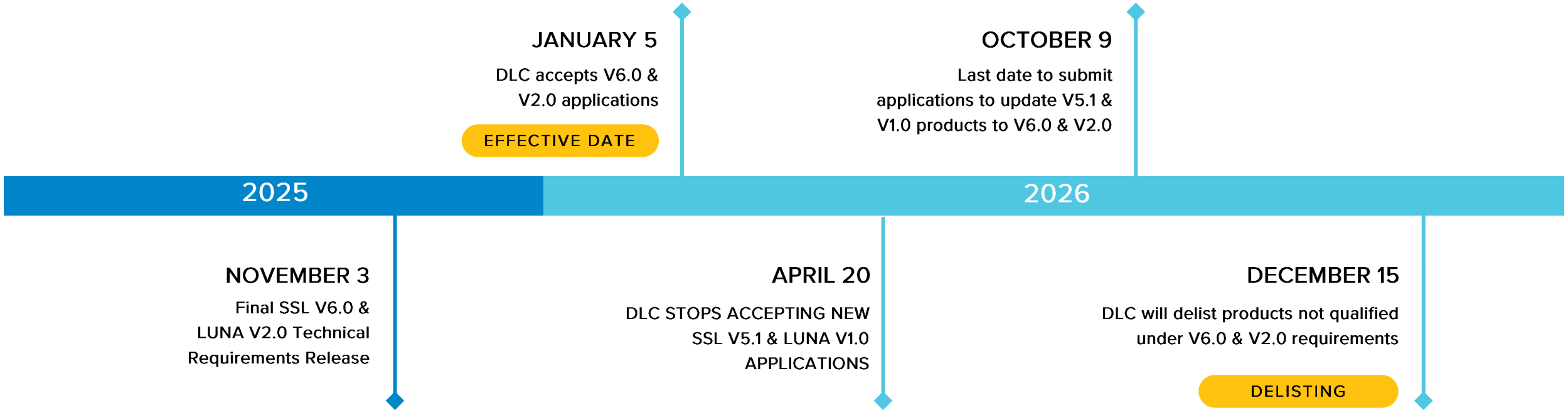
DLC Technical Requirements for LED Lighting is a comprehensive document that revises and builds upon:

- 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)

https://designlights.org/our-work/solid-state-lighting/ssl-v6-luna-v2/

Applications Timeline

Timline Details



Submission Pathways

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Submission Pathways

New

Applications to qualify new products to the QPL as V6.0. All testing and documentation to demonstrate compliance needed.

Update

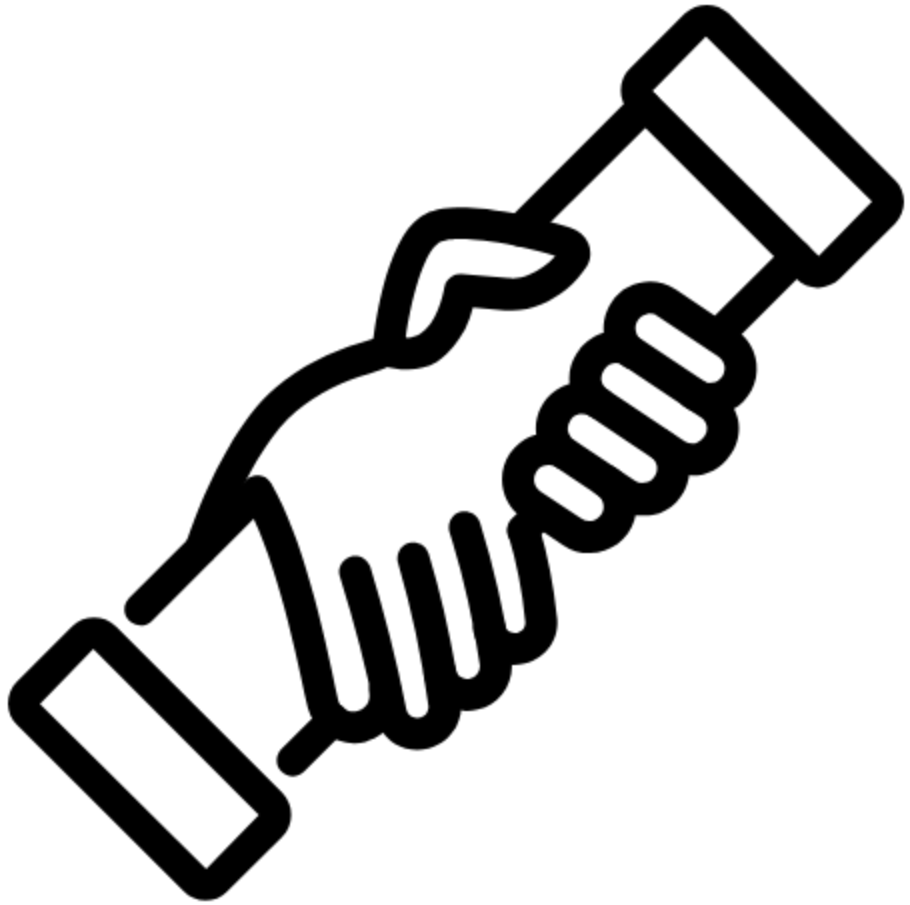
All Products must be submitted in update applications to upgrade from SSL V5.1 & LUNA V1.0 to SSL V6.0 & LUNA V2.0. Update applications pathway depends on if;

a) Products have changed since last qualification

b) Products have not changed since last qualification

Submission Pathway – Update Applications

- Update pathway considered
  - Manufacturer Burden
  - Industry Dynamics
  - Availability of previously submitted test information
- Designed with flexibility to provide V6.0 information with minimize disruption



Submission Pathways – Update Applications

Simplified Update Application

- No product changes
- Solely to upgrade products from V5.1 to V6.0
- Testing not needed
- New documentation/reporting needs for V6.0

Conventional Update Application

- Some product changes
- Upgrade products from V5.1 to V6.0
- Update performance/demonstrate compliance with product changes
- Testing may be needed
- New documentation needs for V6.0

Simplified Update Pathway – Testing Implications

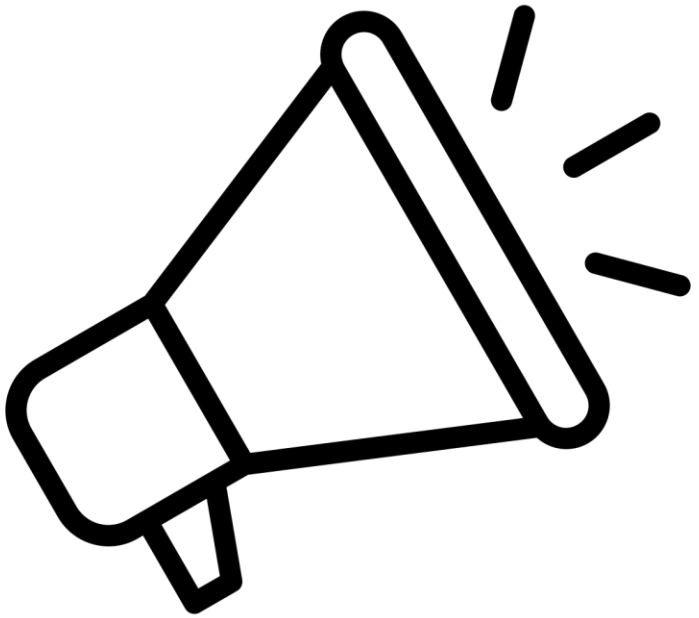
- The DLC SSL V6.0 and LUNA V2.0 has new photometric threshold requirements for
  - Efficacy
  - Chromaticity
  - Distribution (for Wall-Mounted Area PUDs and previously specialty PUDs)
- Reported (nominal) performance is sufficient to demonstrate compliance.
- If a tested product is delisted due to a change in the technical requirements, a new replacement test on a V6.0 eligible product is NOT required
- Please refer to the SSL V6.0 & LUNA V2.0 Manufacturer and Industry Guidance for specific details.

Simplified Update Pathway – Testing

Metric	Tested Models
Minimum Light Output	Worst-case light output
Minimum Efficacy	Worst-case efficacy
Maximum CCT	Highest CCT in family at lowest color rendition option
Minimum CCT	Lowest CCT in family at lowest color rendition option
Minimum Color Rendering	Lowest color rendition option in family
Chromaticity	Lowest/Highest CCT at lowest color rendition option Lowest CCT at highest color rendition option (Premium only)
Lumen Maintenance	ISTMT at worst-case thermal conditions of LED
Driver Lifetime (Premium)	Worst-case driver temperature for each unique driver
Zonal Lumen Distribution (ZLD), Spacing Criteria (SC)	Each unique optical and distribution pattern
BUG Ratings (outdoor only)	Each unique optical and distribution pattern
UGR (Specific Indoor PUDs and Premium Only)	Each unique optical and distribution pattern at the highest lumen output without consideration of the effect of color properties
THD, PF	Worst-case performing driver in family

Simplified Update Pathway – Manufacturer Notifications

- The DLC will be conducting analysis based on product reported data
- Outreach to all manufacturers with;
  - Listed V5.1 products that are eligible for V6.0 determined by reported data
  - Listed V5.1 products that do not meet the photometric threshold requirements in V6.0 determined



V6.0 Documentation Requirements

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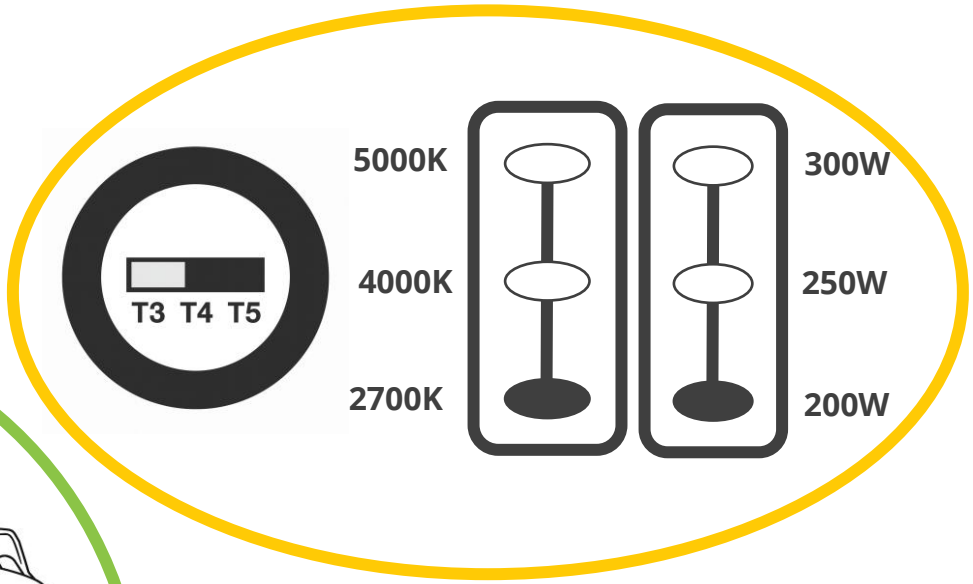
New Documentation Requirements for V6.0



New Documentation Requirements for V6.0

Product Specification Sheets

1. How do you want to associate specification sheets to your products

- One Specification Sheet for all products in the application
- Associate Specification Sheets one by one
- Associate Specification Sheets to Products in Bulk

2. Which specification sheets do you want to use? Required

- Specification Sheets submitted on the previous page
- URL to specification sheet/product webpage
- Associate Specification Sheets to Products in Bulk

Product Images

1. How do you want to associate Product Images to your products

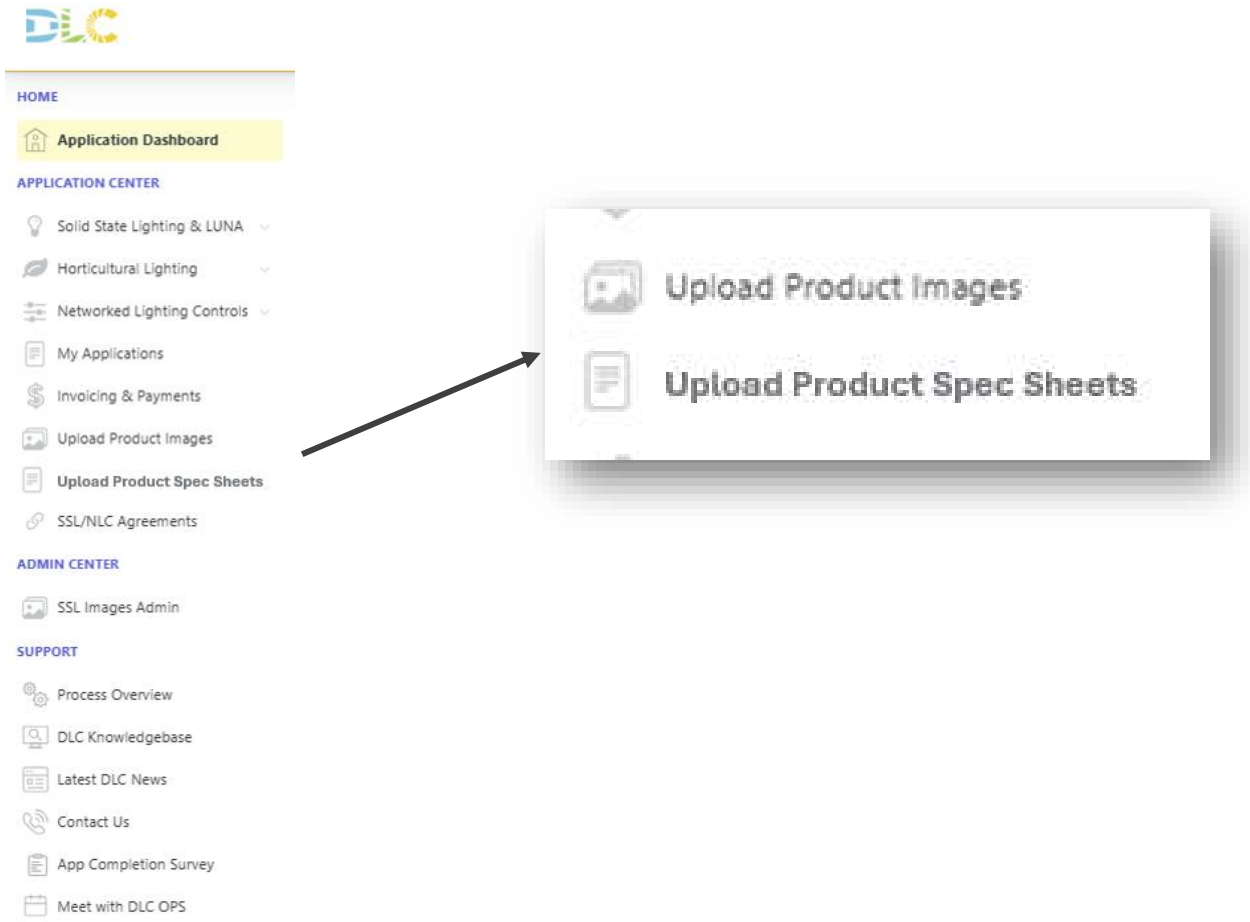
- One Image for all products in the application
- Associate Image one by one
- Associate Image to Products in Bulk

2. Which images do you want to use? Required

- I will upload my own image files
- URL to image files
- Pick from Library
- Take a screenshot from my specification sheet
- Associate image to Products in Bulk

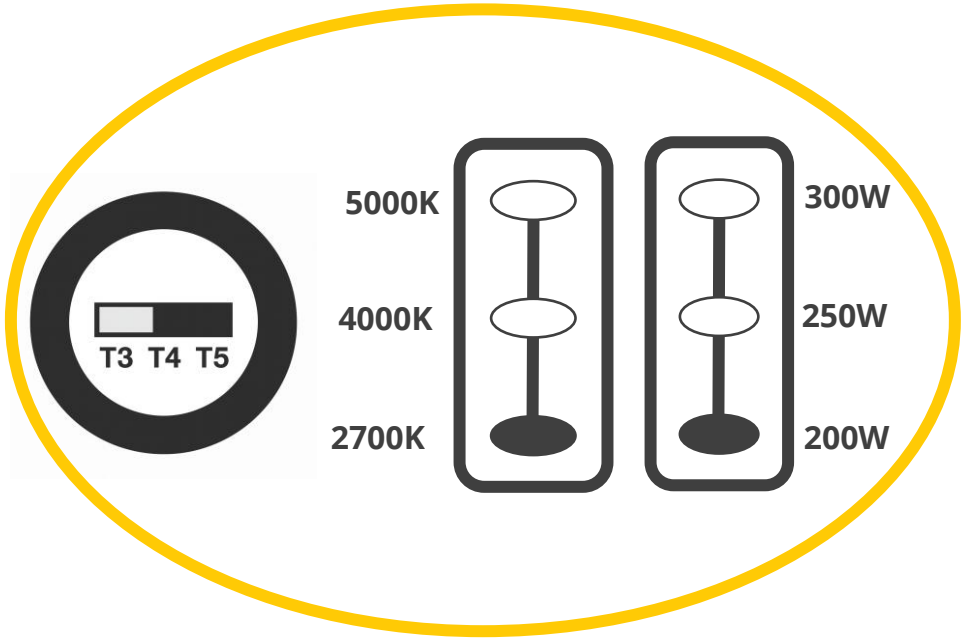
Product Images and Specification Sheets

- Product Images and Specification sheets can be updated at any time
- Accessible via application portal
- Uploading/Updating Images available now



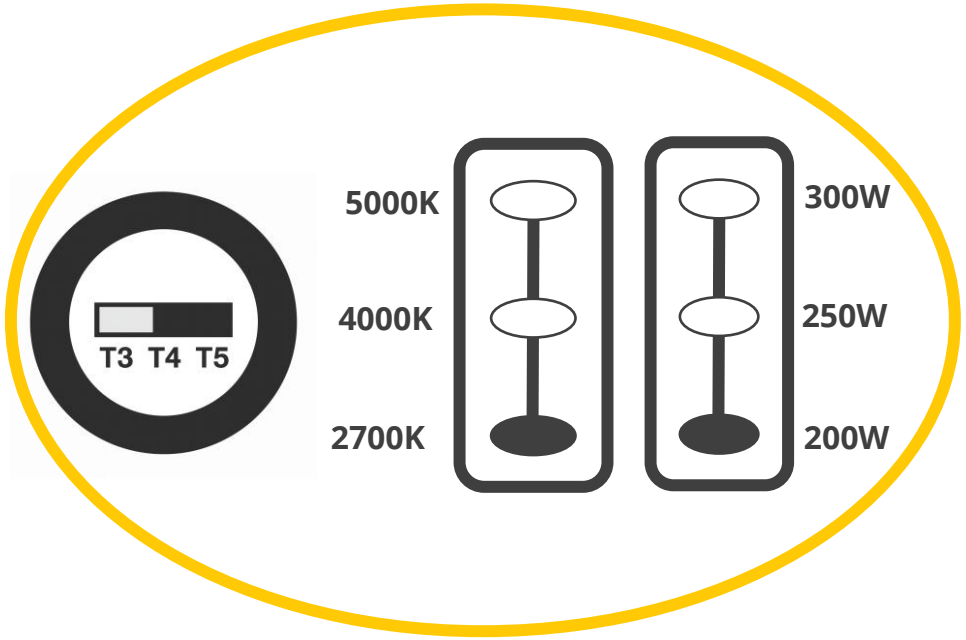
Field-Adjustability – FACT and FALD

- FACT (Field Adjustable Color Temperature)
  - Set at installation
  - Template excel noting the settings and CCT submitted within application questionnaire
- FALD (Field Adjustable Light Distribution)
  - Template excel noting the settings, adjustment type (e.g. NEMA Flood Type, IES Distribution Types) submitted within application questionnaire



Field-Adjustability – FALO

- FALO (Field Adjustable Light Output)
  - Set at installation
  - Included as columns within the application excel form including light output in lumens and wattage for each set point



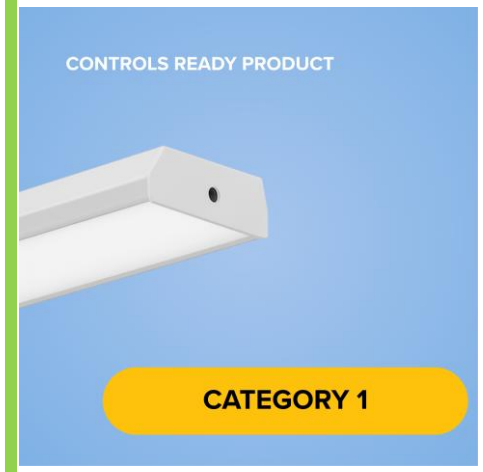
Sustainability

- Optionally, manufacturers can include in the application excel form notes on the sustainability certifications available
- Table 17 of the Technical Requirements includes the available metrics

Controllability

- Expand incentive programs for luminaires with integral controls, controls-ready luminaires
- Align claimed energy savings with lighting controls strategies
- Controls Categories derived from control option capabilities

Controls Categories



Eligible for Premium →

Control Category Classification Impact

- Premium qualification is only eligible for products with Categories 1 – 6.
- Products with controls category 0
  - Can ONLY be classified as DLC standard
  - A luminaire, lamp, or retrofit kit with no integral control capabilities
- Models may need to be separated into two
  - One as standard with Controls Cat 0
  - One as premium with Controls Cat 1+

Controls Options Tables

ALL PRODUCTS												Controls Category
1	2	3	4	5	6	7	8	9	10	11	12	
Controls Option Code	Driver Type	Dimming Capability	Min. Dimming Level	Integral Controller or Sensor Type	Top or Side Controls Receptacle Type	Bottom or Side Controls Receptacle Type	Integral Sensor Function	Integral Sensor Technology	Integral Sensor Max Mounting Height (ft)	NLC Product ID	Controls Ready Accessory Model Numbers (optional)	
[blank]	10V (wired)	Continuous	10%	None	None	None	None	None	N/A	N/A	N/A	0
ABCD	10V (wired)	Continuous	10%	Bluetooth NLC (wireless)	None	None	Occ. + Daylight	PIR	20	NLC3782	N/A	6

Controls Options Tables SSL – NLC Connection

ALL PRODUCTS												Controls Category
1	2	3	4	5	6	7	8	9	10	11	12	
Controls Option Code	Driver Type	Dimming Capability	Min. Dimming Level	Integral Controller or Sensor Type	Top or Side Controls Receptacle Type	Bottom or Side Controls Receptacle Type	Integral Sensor Function	Integral Sensor Technology	Integral Sensor Max Mounting Height (ft)	NLC Product ID	Controls Ready Accessory Model Numbers (optional)	
[blank]	10V (wired)	Continuous	10%	None	None	None	None	None	N/A	N/A	N/A	0
ABCD	10V (wired)	Continuous	10%	Bluetooth NLC (wireless)	None	None	Occ. + Daylight	PIR	20	NLC3782	N/A	6

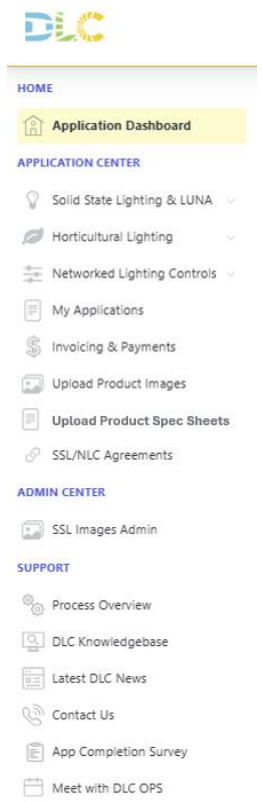
- Controls Options Codes can include NLC listed system
- Claimed relationship between SSL and NLC manufacturer validated through approval document
- Only required the first time
- Executed online

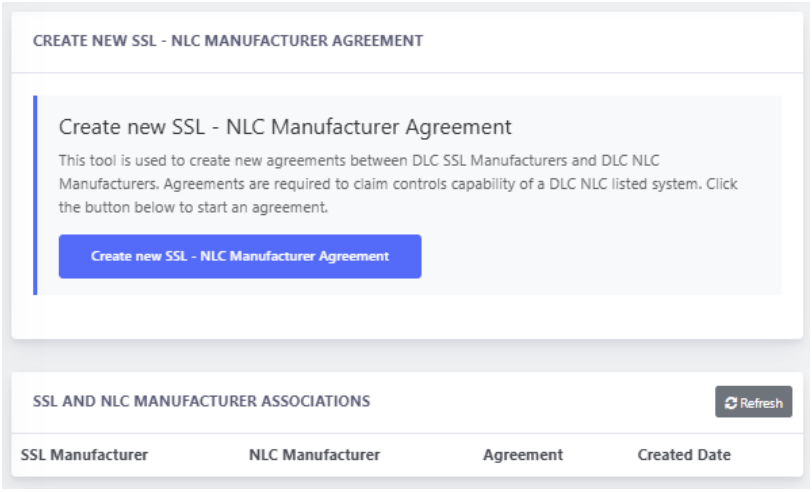
Controls Options Table SSL – NLC Connection

Within an application

- If claiming the use of an NLC System
- Contact info for SSL manufacturer and NLC manufacturer entered on questionnaire
- Agreement sent for signature
- Only needed if SSL – NLC manufacturer agreement pending

Outside an Application





Controls Options Table – Pathway A

- Brand Level Table
- Separate from Application Process
  - Email completed package to controls@designlights.org
  - Brand Level Controls Options Table
    - Template will be available on Submit a Product Pages soon!
  - Product Specification sheets (links or PDFs)
  - QPL download
- Approved Controls options codes referenced for new/update applications
  - 90 days for controls review

Controls Options Table – Pathway B

- Submitted as part of new/update application
  - Application Level Controls Options Tables
    - Template will be available on Submit a Product Pages soon!

- Products will be qualified and listed without controls information
  - 90 days for controls review after listing

V6.0 Application Process

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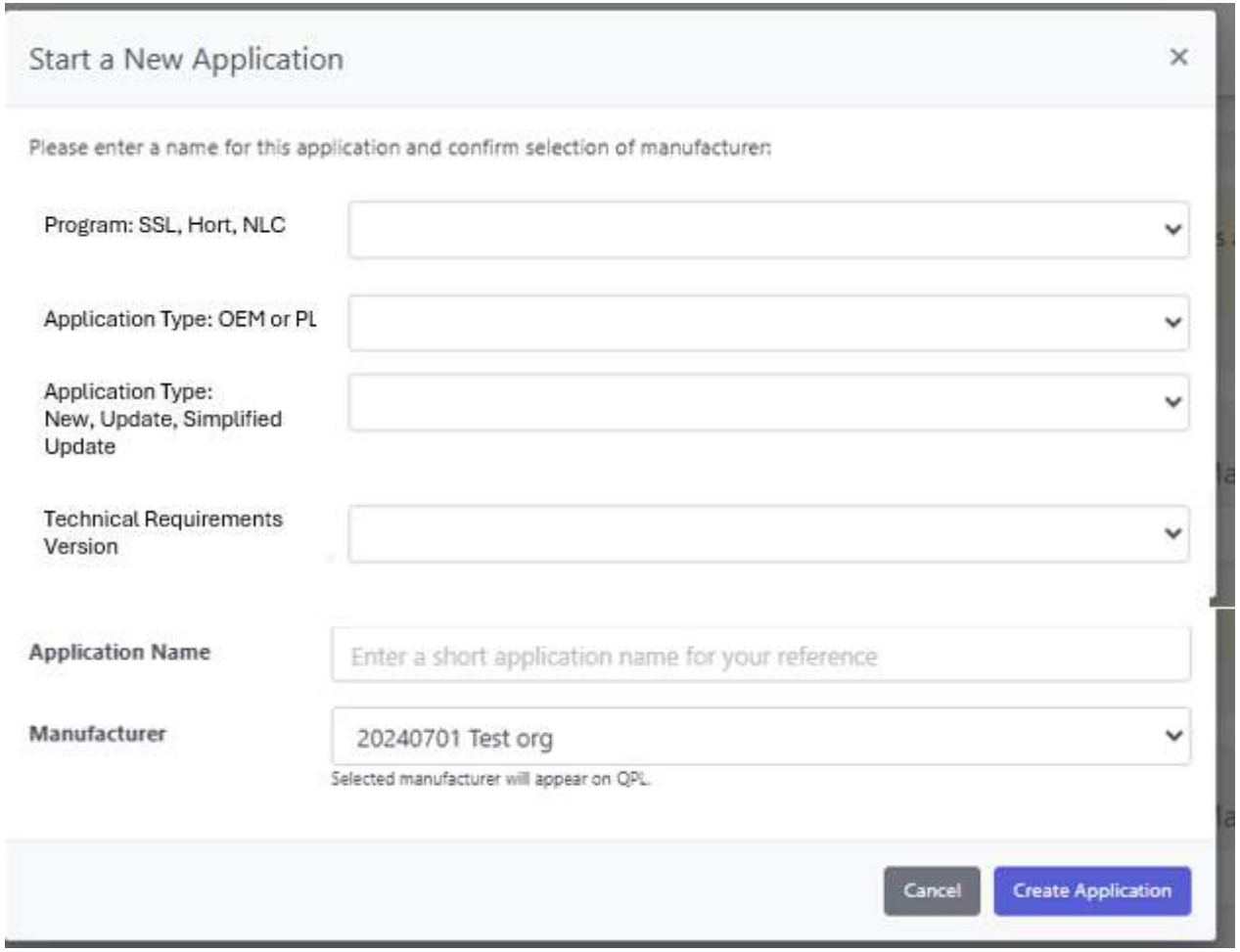
Application Types

- V5.1 New and V5.1 to V5.1 Update applications available until April 20th, 2026
- V6.0 New and V5.1 to V6.0 Update applications accepted January 5th 2026



SSL V5.1 to V6.0 Simplified Update Process

- Create new application
- Select desired family to update
  - One family per application
- Download pre-filled application excel form
  - Includes only products eligible for V6.0 based on efficacy, chromaticity, and distribution
- Update application excel form
- Complete Questionnaire Pages
- Submit

Application Excel Form

Reported Performance Table Tab

- Photometric Performance
- Controls Options Code
- Sustainability
- FALO Settings
- Distribution Adjustability

Components Tab

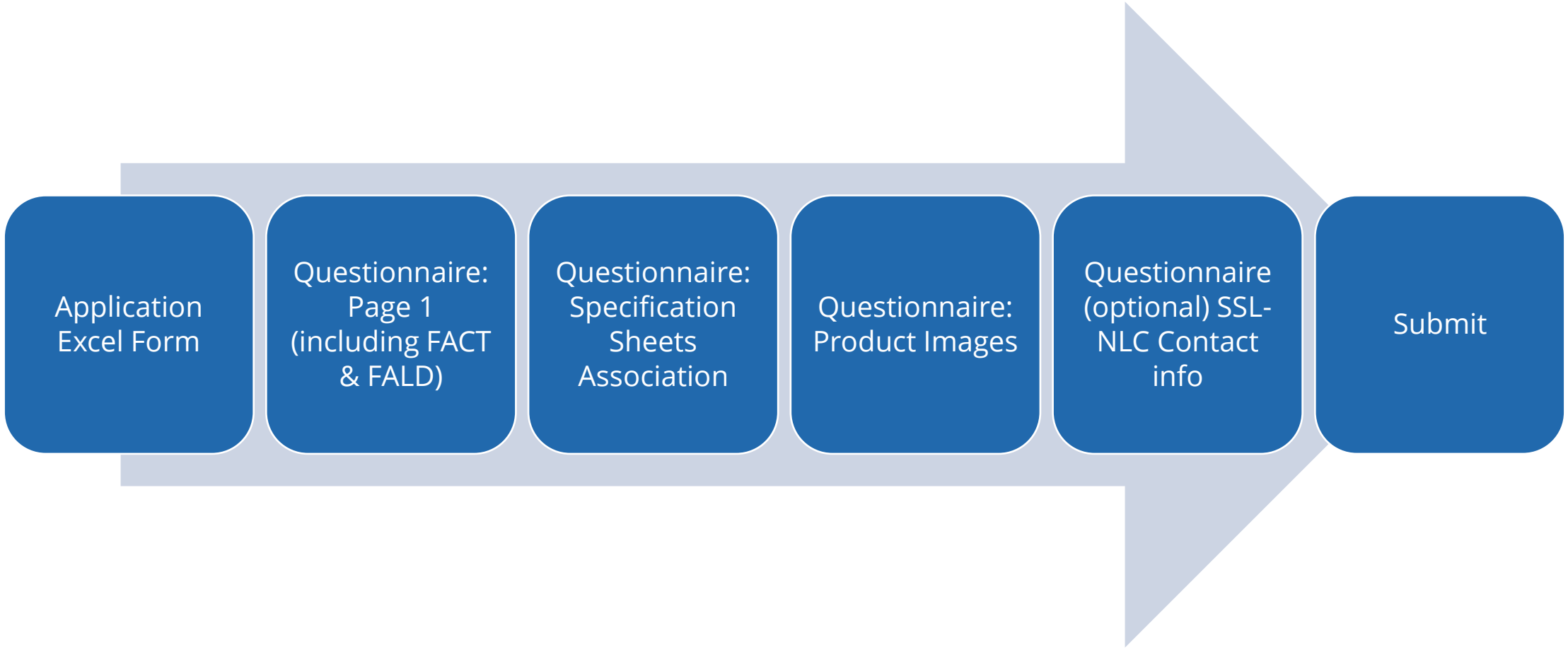
- Same as V5.1
- Drivers and LEDs

Controls Options Table

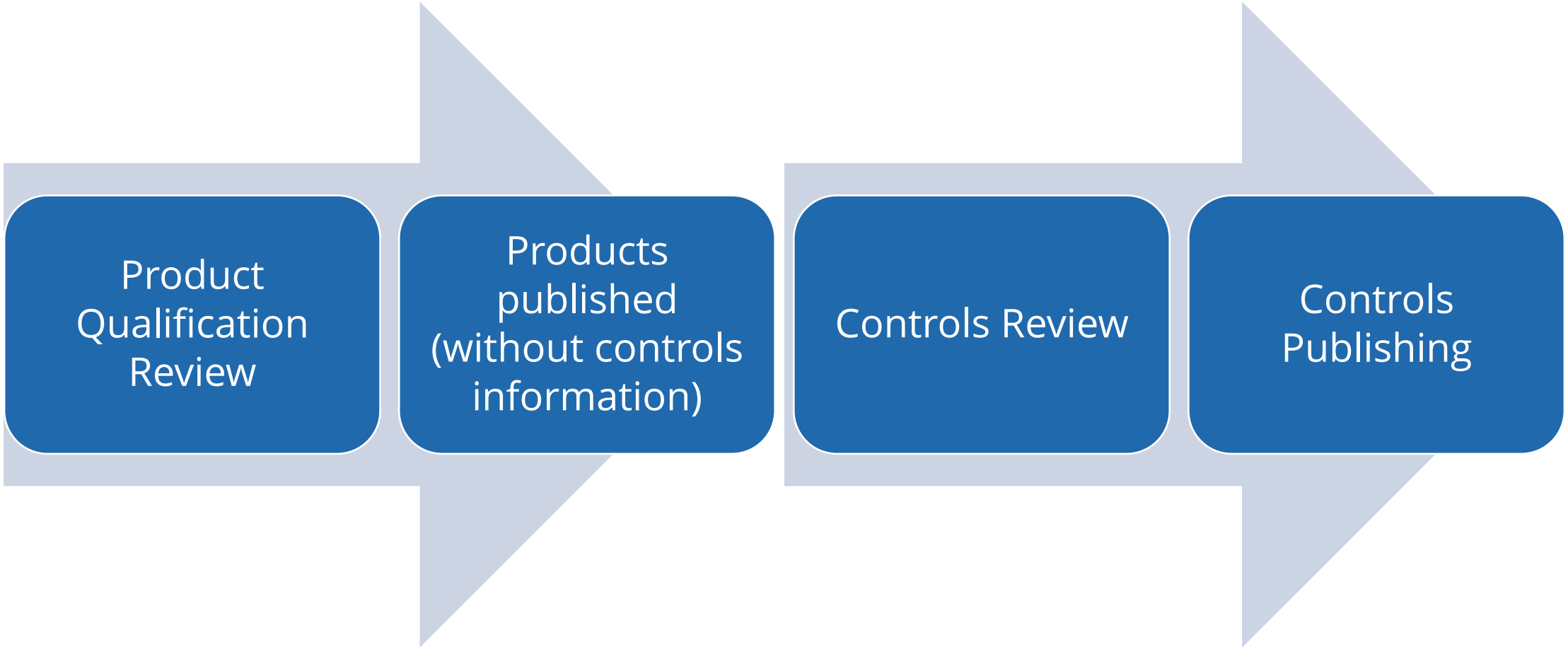
- Performance for all controls options codes included on first tab
- Only required if not already approved

Solar Tab

Application Submission Process Flow



Application Process Flow



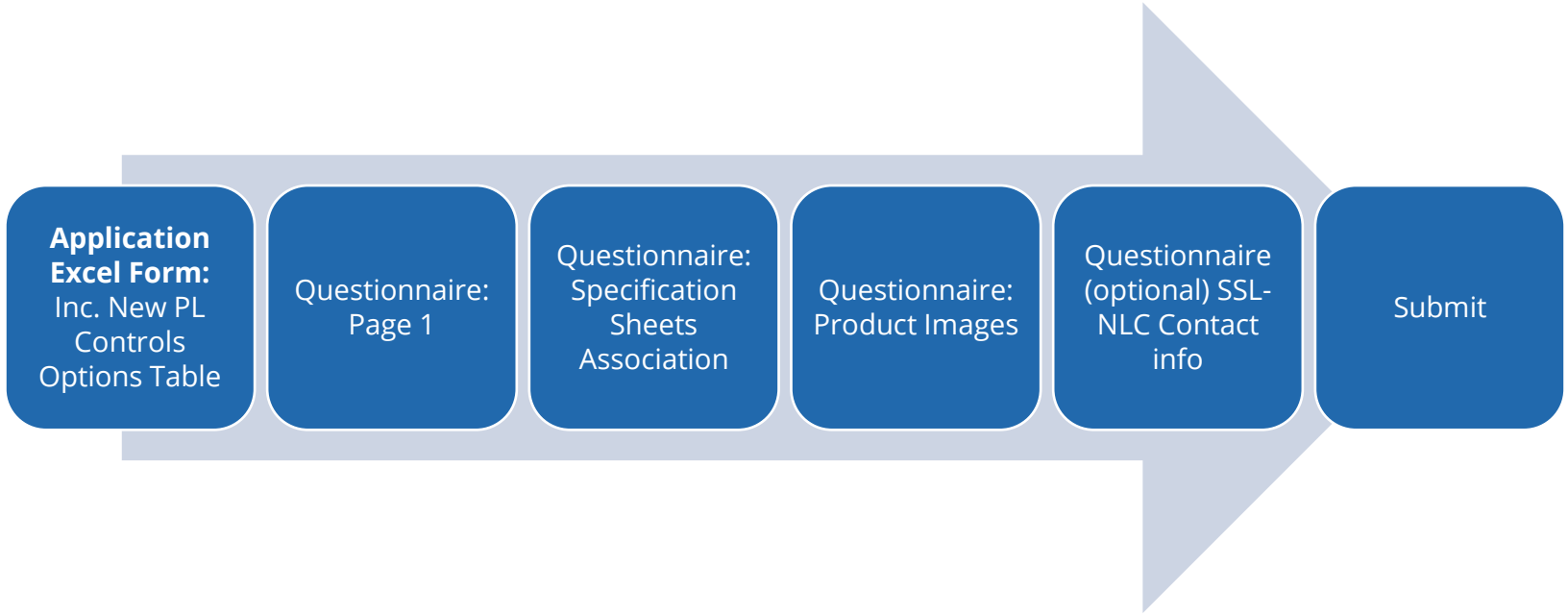
V6.0 New Applications Submission Process

- Documentation and Test Reports according to table 36 of the technical requirements
- Worst case principle used to demonstrate compliance;
  - If your worst meets → better products meet too
  - No changes from V5.1 (new test req. for Amber)
- Similar documentation needs as update applications
- Tolerances applicable to tested data only

Metric
Minimum Light Output
Minimum Efficacy
Maximum CCT
Minimum CCT
Minimum Color Rendering
Chromaticity
Lumen Maintenance
Driver Lifetime (Premium)
Zonal Lumen Distribution (ZLD), Spacing Criteria (SC)
BUG Ratings (outdoor only)
UGR (Specific Indoor PUDs and Premium Only)
THD, PF

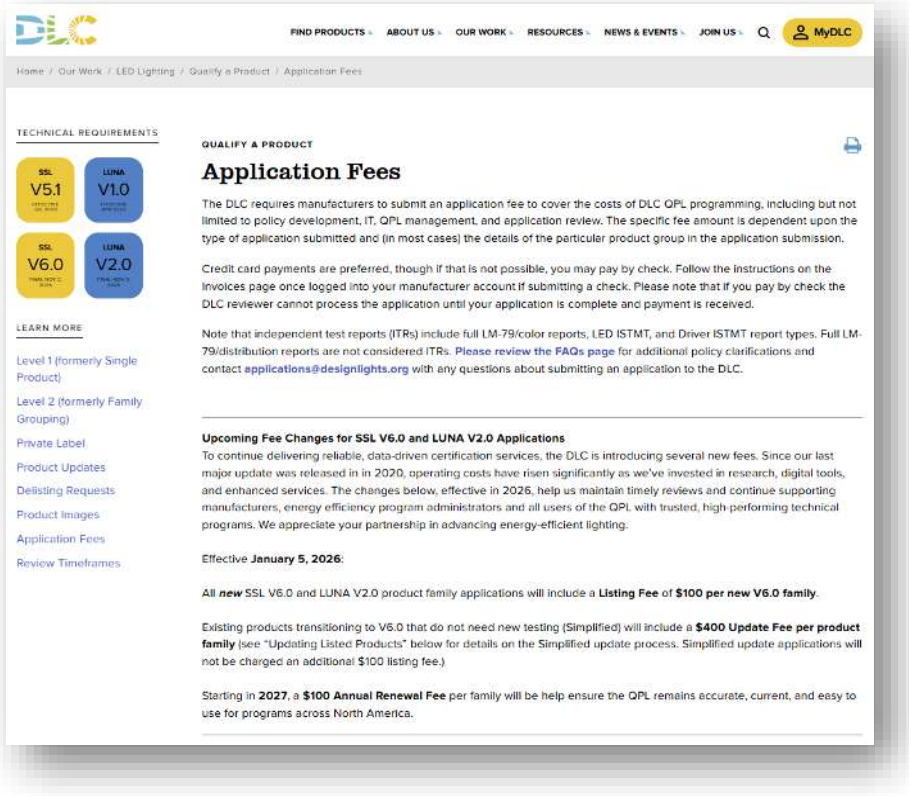
V6.0 Private Label Application Process

- Applications to update or qualify private label products to V6.0 must be submitted after their respective OEM is updated to V6.0



Application Fees – V5.1 to V6.0 Update Applications

- SSL V6.0 & LUNA V2.0 Application Fees can be found on Application Fees Page
- SSL V6.0 & LUNA V2.0 Simplified Update Fee: $400 (per family).
  - Fee applies for all SSL V5.1 & LUNA V1.0 to SSL V6.0 and LUNA V2.0 Update Applications.
  - New products or new Independent Test Reports (ITRs) will be charged the applicable fees in addition to the $400 V6.0 Simplified Update Process Fee.
  - Additional model numbers due to the standard and premium controls not charged additional model number fees within V5.1 to V6.0 Update applications.

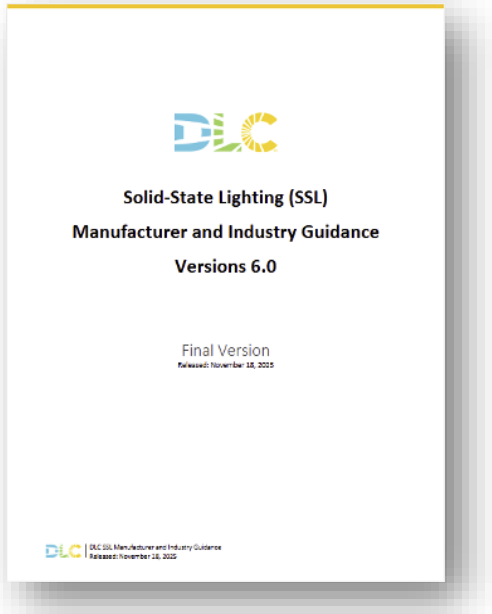


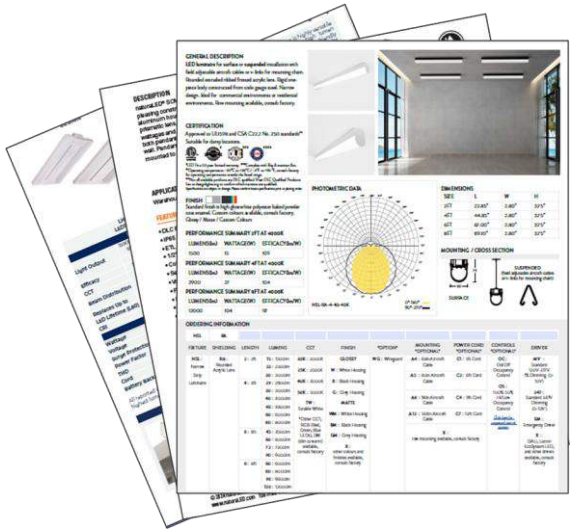
Application Fees – New V6.0 Applications

- New SSL V6.0 and LUNA V2.0 product family applications will include a Listing Fee of $100 per new V6.0 family.
  - Included during application review along with applicable per model fees and ITR fees
  - Simplified update applications are not charged the $100 Listing fee
- Starting in 2027, a $100 Annual Renewal Fee per family will be assessed to help ensure the QPL remains accurate, current, and easy to use for programs across North America.

Upcoming

- To assist with updating and understanding the V6.0 requirements and submission process, suite of resources are under development.
- Individual manufacturer outreach on status of V5.1 products compared to V6.0 requirements
- Staff on hand to assist, email applications@designlights.org
- Additional details on V6.0 application review timeframes in the coming weeks





DLC LUNA™

Webinar Review

Q&A