



# Wide Area Light Demo

Presenter

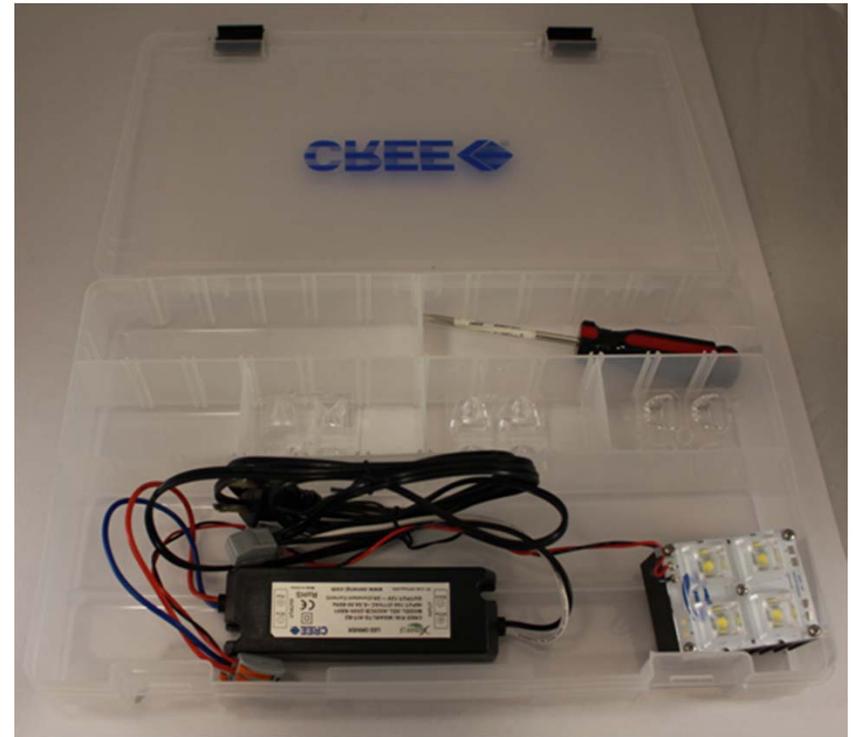
Date



# Wide Area Light Demo

**Demo Objective:** Provide an easy-to-view depiction of a solid-state lighting system enabling users the opportunity to view multiple illuminance patterns utilizing Cree's revolutionary XLamp XM-L LED.

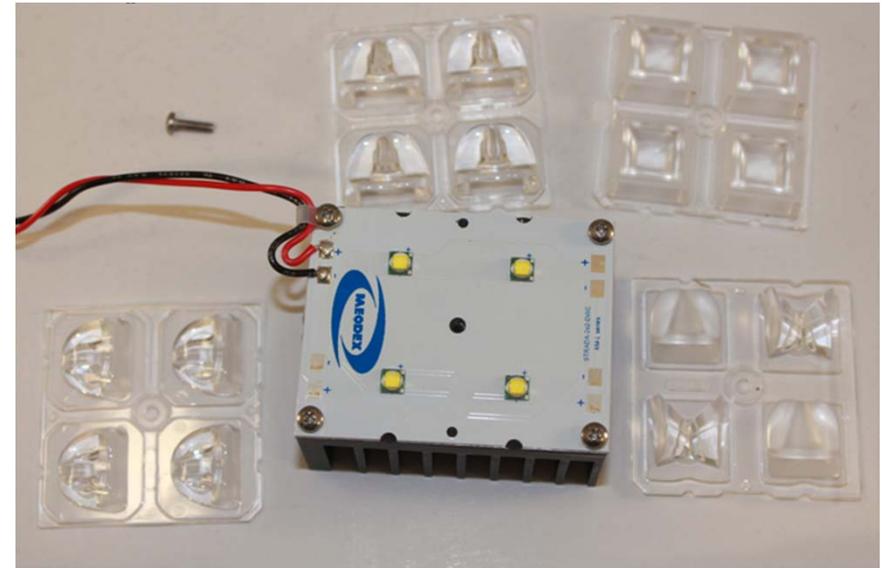
In addition this demonstration shows first-hand the benefits of utilizing XM-L at higher than its binning current and closer to its maximum rated current, thus using more of the operating capacity of the LED.



# Wide Area Light Demo

**How to use this demo:** Lenses can be changed by removing the screw at the center of the optic. The demo is most effective when in a darkened room and the demo is on the floor shining up against the ceiling.

If this isn't feasible, shining the demo against a bare wall with the demo 10-15ft away from the wall best replicates how the system will look in an application and the different light patterns of the various optics.



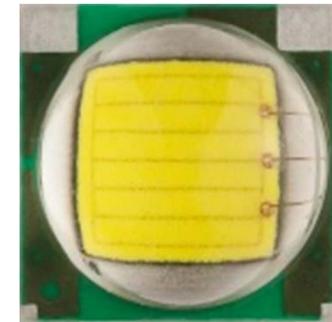
**WARNING:** This demo heats up very quickly. Please be careful when handling the demo and don't leave the demo on for more than 5 minutes or it will become very hot to the touch.

# Wide Area Light Demo – Cree XLamp XM-L

The Cree XLamp XM-L White LED is the industry's highest flux and efficacy single-die LED component delivering:

- Up to 160 lumens @350mA (160 LPW)
- Up to 1000 lumens @ 3A (100 LPW)

- Ideally suited for outdoor, high-bay and indoor directional fixtures
- Available in color temperatures from 2700K – 8300K
- Standard and High CRI Options



# Wide Area Light Demo – DETAILS ON LEDIL OPTICS

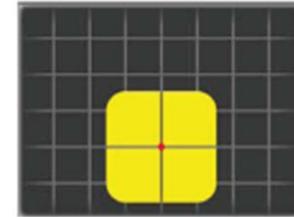
## C12361\_HB 2X2 High-Bay Module

Optimized to create a square, asymmetric light pattern meeting Design Lights Consortium (DLC) high-bay requirements with 70% lm in the 0° - 60° zone

Optic Diagram



Optic Beam Pattern

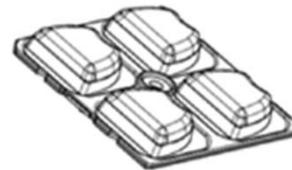


## C12419-STRADA-2X2-A-T

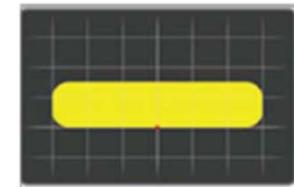
Street Lighting Type II Pattern

Designed to work on roads that are narrower than the height of the pole and when the space is four times the height of the pole. This optic has an asymmetric design so it can be used without tilting the lamp head

Optic Diagram



Optic Beam Pattern



Find out more about these optics at [www.ledil.com](http://www.ledil.com)

# Wide Area Light Demo – DETAILS ON LEDIL OPTICS

## **C12360\_STRADA-2X2-DNW**

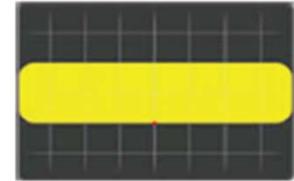
### Street Lighting Type III Pattern

Designed for roads where the pole height and the roadway width are similar. The optic has an asymmetric design which often negates the need for tilting the head of the lamp

**Optic Diagram**



**Optic Beam Pattern**



## **C12362\_STRADA-2X2-DWC**

### Street Lighting Type III Pattern

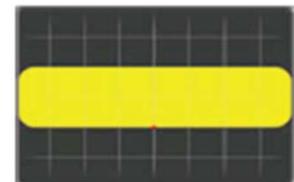
Designed for roads with longer pole distances.

This optic can be used in street lighting setups where the pole distance is six times the pole height. This optic also has an asymmetric design that often negates the need to tilt the lamp head

**Optic Diagram**

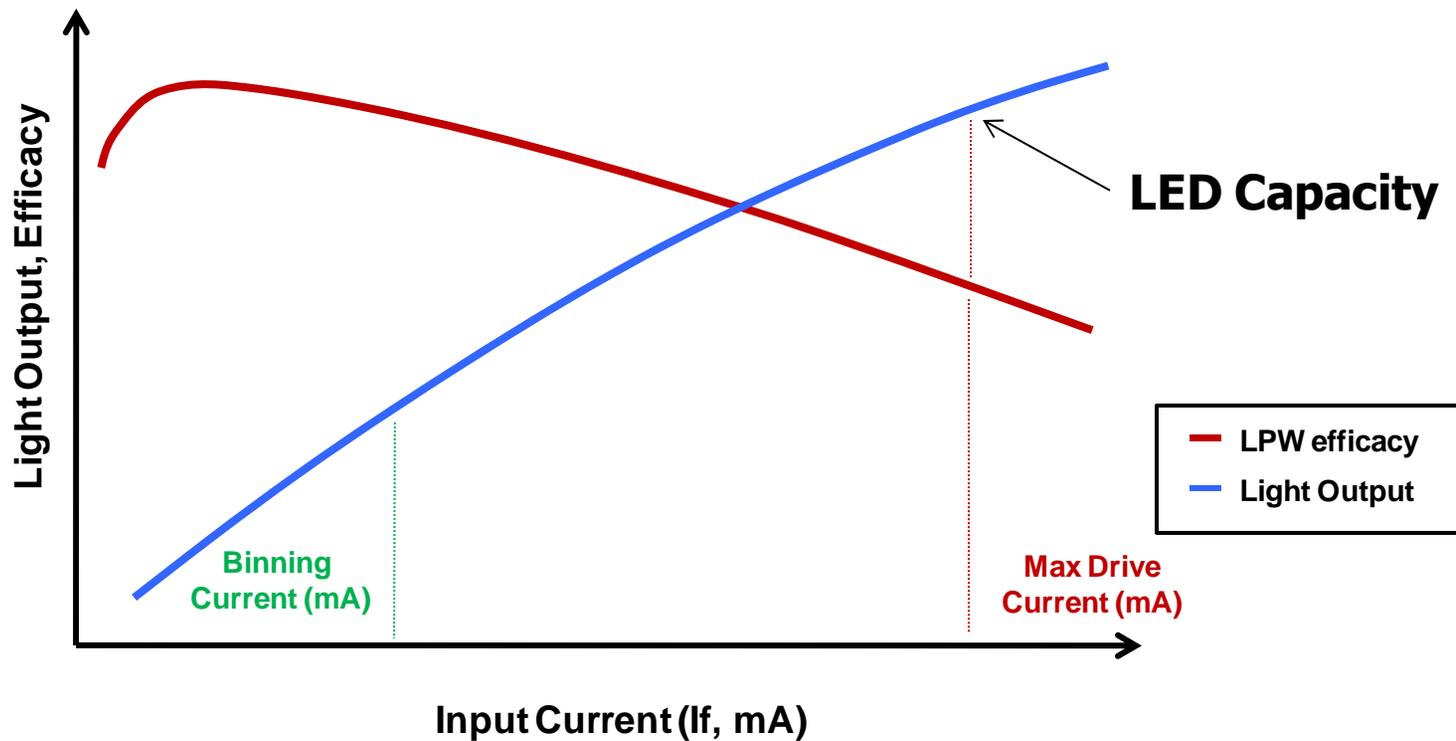


**Optic Beam Pattern**



**Find out more about these optics at [www.ledil.com](http://www.ledil.com)**

# Wide Area Light Demo – LED Capacity

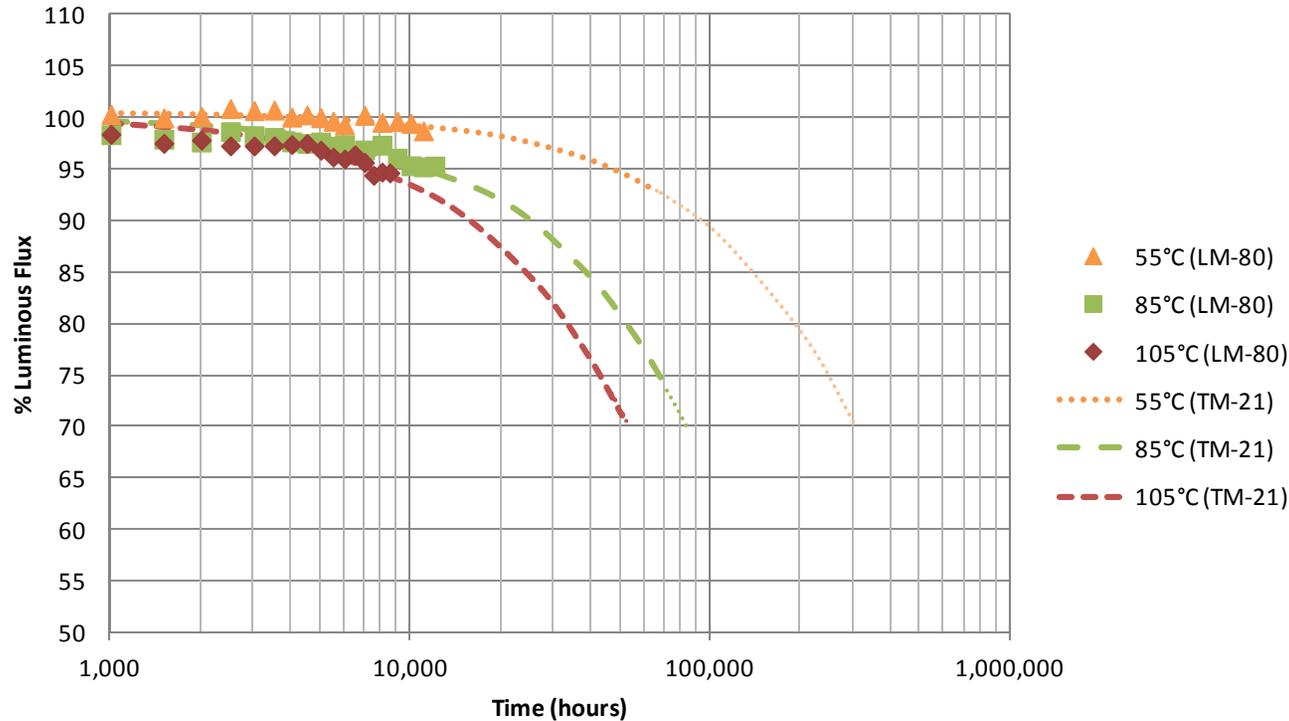


Binning current is not the “optimal” or “recommended” current for operating an LED.

Not driving LEDs at maximum drive current results in wasted capacity. You are essentially paying for lumens that you are not using.

Using LEDs at capacity results in reduced component count and lower system cost.

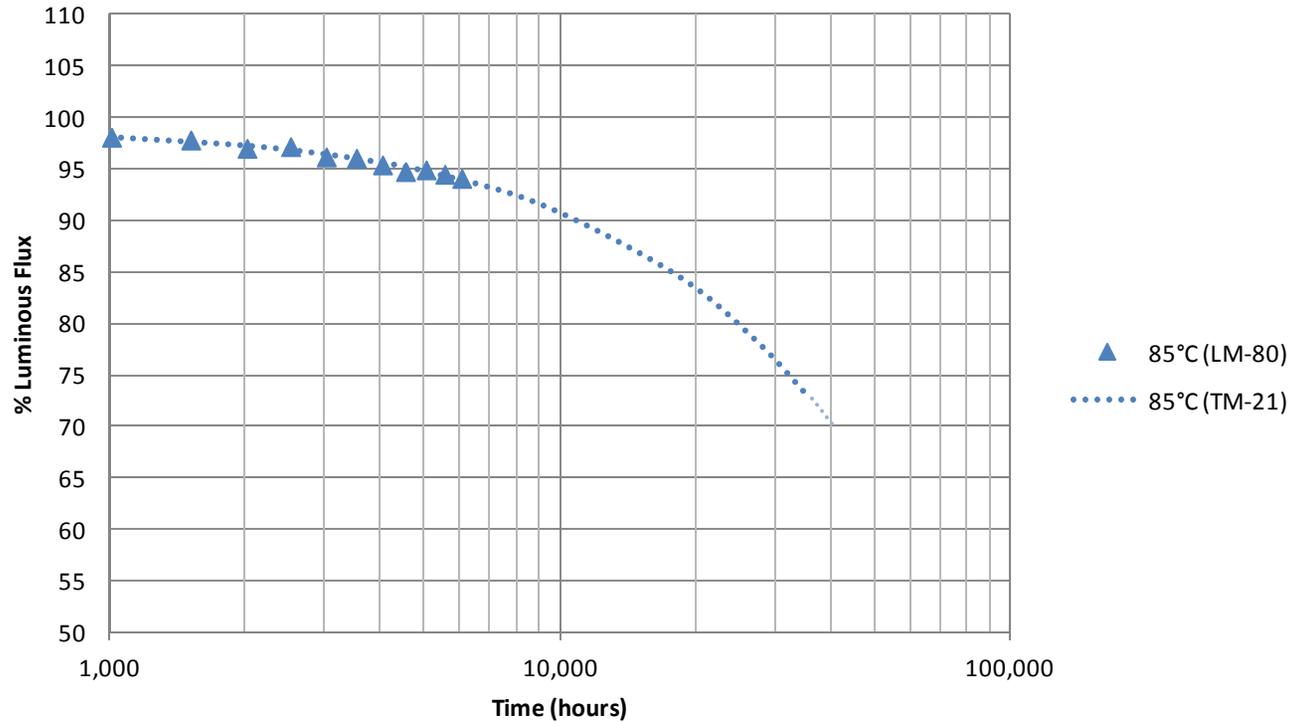
# XLamp XM-L White L70 Lifetime (TM-21)



Current	Ta/Tsp	Test Duration	$\alpha$	$\beta$	Calculated L70	Reported L70
2000 mA	55°C	11,088 hrs	1.182E-06	1.005E+00	306,000 hrs	<b>L70 (11k) &gt; 61,000 hrs</b>
	85°C	12,096 hrs	4.238E-06	9.999E-01	84,100 hrs	<b>L70 (12k) &gt; 72,600 hrs</b>
	105°C	8,568 hrs	6.627E-06	1.000E+00	53,800 hrs	<b>L70 (9k) &gt; 47,100 hrs</b>

XM-L has excellent long term performance data 2000 mA, well above binning current

# XLamp XM-L White L70 Lifetime (TM-21)



Current	Ta/Tsp	Test Duration	$\alpha$	$\beta$	Calculated L70	Reported L70
3000 mA	85°C	6,048 hrs	8.497E-06	9.893E-01	40,700 hrs	<b>L70 (6k) &gt; 36,300 hrs</b>

XM-L has new long term performance data 3000 mA, maximum current

**Notes:**

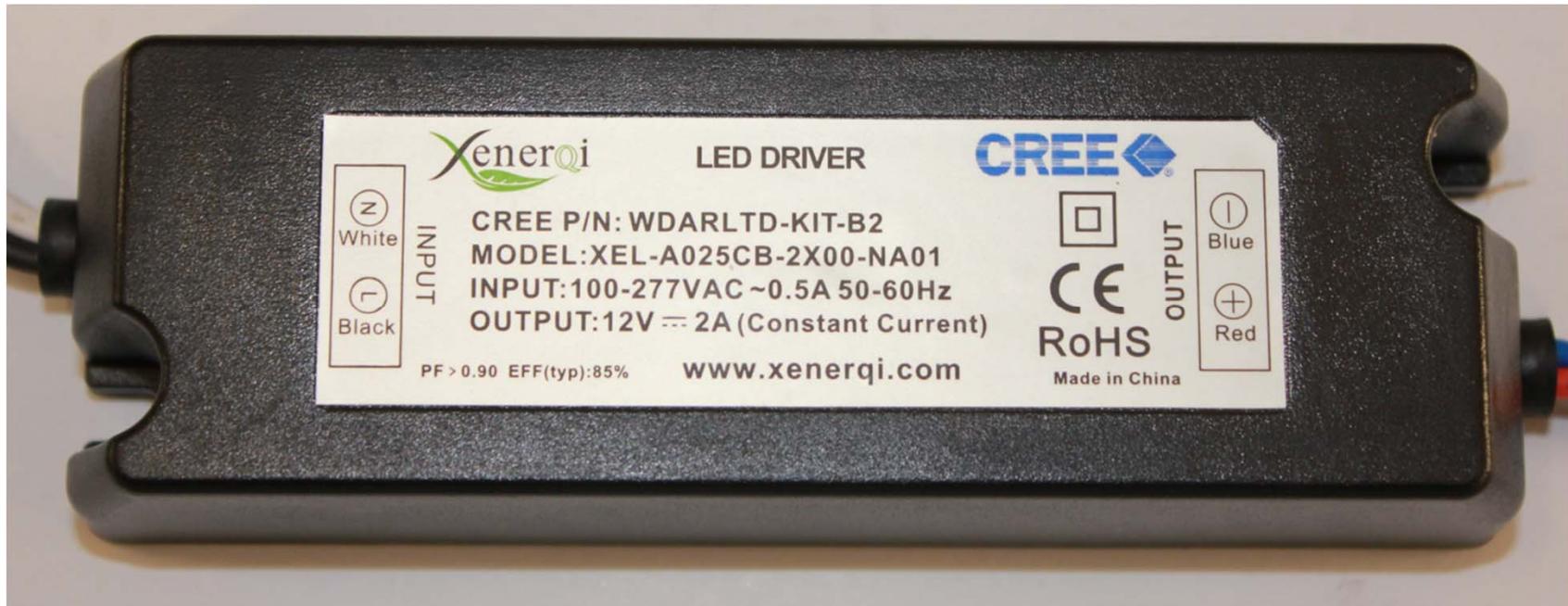
- These extrapolations are for informational purposes only and are not a warranty or a specification.
- Extrapolated lifetimes are subject to change without notice.



# Wide Area Light Demo – Driver Information

## Driver from Xenerqi

The XEL-A025CB is a 25-W constant current LED driver designed for the needs of today's lighting fixtures: multi-country, universal input, high efficiency, PFC, 5-year warranty, lighting suppression, wide output range and no flicker, among others.



Find out more at [www.xenerqi.com](http://www.xenerqi.com)



PORTABLE



RESIDENTIAL



OFFICE



RETAIL



ARCHITECTURAL



OUTDOOR



## LED lighting: Energy efficient & planet friendly.

### Cree. Leading the LED lighting revolution.

Join Cree's LED lighting revolution. We invite you to see how our high-performance, high-efficiency LEDs are lighting up the world.

