## LED LIGHTING SOLUTIONS

for today and tomorrow



## kurt versen 🔀

Kurt Versen fuses technological advances and extraordinary design to create innovative lighting solutions for our commercial clients around the world.

### Innovative lighting for more than 80 years

Since the 1930s Kurt Versen has designed and manufactured premium quality point source lighting products, utilizing incandescent, compact fluorescent, HID and now LED sources. Selected by leading lighting design firms, engineers, architects, specifiers and agencies, our specification grade point source light fixtures are used in a wide spectrum of office, commercial, retail, government, entertainment, hospitality and institutional applications.

Our many high-profile projects include: the United Nations General Assembly....Yankee Stadium...three Presidential Libraries....the Philadelphia Convention Center.... the Dallas Convention Center Hotel....the Abu Dhabi Financial Center.... Los Angeles International Airport.... the Shubert Theatre....the S. Dali Museum.... and the U.S. Supreme Court.

We engineer and manufacture all our products — through every stage from raw metal to finished luminaires — in our 125,000 square foot state-of-the-art facility in Westwood, New Jersey. Characterized by low brightness are multiple light patterns with high lumen output, our fixtures are energy-efficient, easy-to-install, and built with the sustainability to last the life of the project.

### Fulfilling today's promise...

The many promises of LED lighting technology come with an equal number of challenges. The potential for significant energy savings, increased longevity, greater durability and improved reliability is revolutionary.

However, in reality there are still many challenges to overcome before the full potential of LEDs will be realized:

- Rapidly evolving technologies
- Color inconsistency
- Optical control
- Glare control
- Thermal management issues
- Lack of consistent manufacturing standards

As a result, many issues remain unresolved. What technological innovations will the future bring? Will today's manufacturers even exist tomorrow? How do you prepare for technologies that don't yet exist and protect the lighting investment you make today from being obsolete tomorrow?



**Innovative Heat Sink Technology:** Outstanding efficiency in dispersing heat to ensure long life and proper operation

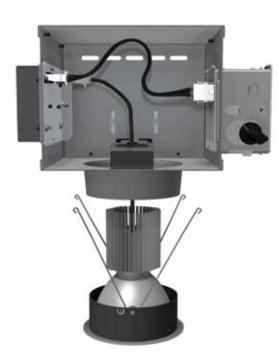
...engineering for tomorrow's solutions today. Kurt Versen is known for the outstanding quality, reliability and longevity of its products. That has been our hallmark and commitment for more than eight decades. It is why our LED products provide optimum optical and thermal solutions, overcome the challenges that LED installations face — and still meet the level of quality and performance our clients expect from us.

Kurt Versen helps you take advantage of the many benefits of LED technology with the confidence that an investment made today will continue to pay off in the years to come. Our new approach to lighting solutions addresses both today's challenges and tomorrow's changes.

#### Best of all,they are MultiSource<sup>™</sup> capable — forever.

We designed our new line of LED lighting fixtures with built-in flexibility and versatility so they can be adapted to the many innovations just beyond the horizon. Our new line of LED products even allows you to install traditional lamps now — such as metal halide — and easily switch to LEDs at some future point.

Think of us as your first line of defense against obsolescence and the best way to protect your initial investment in the future.



### MultiSource<sup>™</sup> flexibility...

Kurt Versen introduces three new full product lines, each designed specifically to optimize the unique characteristics of these state-of-the-art light sources. Remote phosphor modules, PAR LED and MR-16 MH lamps all offer exciting new opportunities to design great lighting installations with dramatic energy savings.

The product lines are designed for quick changeover of light sources using a plug-and-play philosophy. Lighting systems can easily be released from secure mountings and changed in the field with simple plug-in connectors. Optical assemblies are created for each light source, assuring beam performance and brightness control. Conversion kits are available from Kurt Versen. New systems will be added as the technology continues to grow and change in the future.

Now, designers can choose the appropriate LED source for each application all within the same size aperture family. No more one source fits all solutions!

Best of all, the products are designed to be MultiSource<sup>™</sup> capable. Start today with one source and change tomorrow to the latest technology.

### Kurt Versen's MultiSource<sup>™</sup> technologies...

#### **REMOTE PHOSPHOR**

Remote phosphor technology utilizes high efficiency blue LEDs deployed in a light mixing chamber which directs the light through a color-correcting phosphor layer. Requires separate driver to power the module.

#### **BENEFITS**

High level of color uniformity and CRI are achieved as well as powerful lumen packages. No binning complications.

#### **MANUFACTURERS**

Xicato Philips



#### PAR LED

Individual phosphor coated LEDs, with optics, mounted into traditional medium-base PAR lamp envelopes. Electrical components contained within the lamp.

#### **BENEFITS**

Lower cost solutions with multiple major manufacturers support. Various beam patterns available. Ease of future relamping and maintenance.

#### **MANUFACTURERS**

#### GE Philips Toshiba Sylvania



#### **MR-16 MH**

Metal halide technology in the MR-16 size and shape. High-lumen package with good color rendering. Requires separate ballast.

#### **BENEFITS**

Multiple beam patterns give designers more tools with which to work. Reliable, proven metal halide technology. Ease of future relamping and maintenance.

#### **MANUFACTURERS**

GE Philips



## Platform adaptability...

The new Kurt Versen LED lines are designed with universal platform adaptability allowing for total field flexibility. Changes in function are now possible with replacement components available from Kurt Versen.

The lines consists of two distinct styles of products, Fixed Function and Flex Function.

#### **FIXED FUNCTION:**

Each model is designed with dedicated optical performance. They are ideal for applications where there will be no need to change functionality of the fixture over the life of a project. Most importantly, they are MultiSource<sup>™</sup> capable protecting against future source obsolescence.

#### **FLEX FUNCTION:**

Complete field flexibility to convert between lighting functions is achieved in the Flex Function family of products. Interchange as needed between downlighting, directional/accent lighting, and wall washing. Of course, all versions are designed for MultiSource<sup>™</sup> functionality.



### Kurt Versen's MultiSource<sup>™</sup> platforms

#### **REMOTE PHOSPHOR**

Separate, dedicated optical systems have been designed for the Xicato and Fortimo modules. Multiple beam patterns are offered in the downlights, while the wall washers provide wide and even illumination. Directional/ slope fixtures are also available with multiple beam patterns which can be changed easily in the field.

#### PAR LED

Just because the LEDs are mounted into familiar PAR configurations does not mean they perform anything like their incandescent forefathers! All new optics and precision mounting systems have been created to optimize the output while minimizing glare. Current limiting devices are available allowing compliance with energy codes.

#### MR-16 MH

Unique internal structures have been developed to maximize the advantages of these sources. Careful positioning and optical designs assure best results for accent lighting, downlighting and wall washing.



Please visit www.kurtversen.com for the latest product information.

## 4" Round — fixed function

Classic Kurt Versen deep shielding conoid designs achieve unparalleled brightness and glare control with LED sources. This series of products is designed for installation where the functionality of the products will not need to be reconfigured in the future. All models are designed for optimal photometric performance. The fixture's mechanical components are developed to give a solid platform for the optical system and facilitate the MultiSource<sup>™</sup> requirements for easy transition to future technologies.

#### HIGHLIGHTS

- Low brightness shielding cones available in Specular Alzak, Softglow<sup>®</sup> and the new SoftSheen<sup>™</sup> finish. All colors available.
- Plug-and-play ease of maintenance.
- Multiple distributions.



#### **LED Remote Phosphor**



LED PAR 20/PAR 30



**MR-16 MH** 



MODEL	SOURCE	LUMENS	FUNCTION	DISTRIBUTION	
A1137	Xicato	1000, 1300	Downlight	Narrow	
A1135	Xicato	1000, 1300	Downlight	Medium	
A1133	Xicato	1000, 1300	Downlight	Wide	
A4136	Xicato	2000	Downlight	Narrow	
A4134	Xicato	2000	Downlight	Medium	
A4132	Xicato	2000	Downlight	Wide	
A2155	Xicato	1000, 1300	Lens Wall Washer	Uniform	
A3159	Xicato	1000, 1300	Combo Down/Wall Washer	Uniform	
A4151	Xicato	2000	Combo Down/Wall Washer	Uniform	
A1238	Fortimo	1100, 1300	Downlight	Wide	
A4239	Fortimo	2000	Downlight	Wide	
A2257	Fortimo	1100, 1300	Lens Wall Washer	Uniform	
A3258	Fortimo	1100, 1300	Combo Down/Wall Washer	Uniform	
A4253	Fortimo	2000	Combo Down/Wall Washer	Uniform	
A1332	LED PAR 20	Various	Downlight	Various	
A1333	LED PAR 30*	Various	Downlight	Various	
A2350	LED PAR 20/30*	Various	Lens Wall Washer	Uniform	
A1430	MR-16 MH	to 2100 Im	Downlight	Various	
A2451	MR-16 MH	to 2100 Im	Lens Wall Washer	Uniform	

\*PAR 30 Short Neck.

For wattage information see catalog specification page on website.

# 4" Round — flex function

Have you ever designed a project only to wish you could change the lighting equipment as the room requirements changed? With the Flex Function series, now you can. All lighting functions are capable of interchanging in the field regardless of which function was originally installed. Downlights can become wall washers as wall washers can become directionals, etc.

#### HIGHLIGHTS

- Low brightness shielding cones available in Specular Alzak, Softglow<sup>®</sup> and the new SoftSheen<sup>™</sup> finish. All colors available.
- Plug-and-play ease of maintenance.
- Multiple distributions.
- Field-changeable beam patterns.
- Dual optical reflector systems.



#### **LED Remote Phosphor**



LED PAR 20/PAR 30



#### MR-16 MH



MODEL	SOURCE	LUMENS	FUNCTION	DISTRIBUTION	
A4146	Xicato	1000, 1300	Directional Downlight	Narrow	
A4144	Xicato	1000, 1300	Directional Downlight	Medium	
A4142	Xicato	1000, 1300	Directional Downlight	Wide	
A5147	Xicato	2000	Directional Downlight	Narrow	
A5145	Xicato	2000	Directional Downlight	Medium	
A5143	Xicato	2000	Directional Downlight	Wide	
A4155	Xicato	1000, 1300	Lens Wall Washer	Uniform	
A5156	Xicato	2000	Lens Wall Washer	Uniform	
A4248	Fortimo	1100, 1300	Directional Downlight	Medium	
A5249	Fortimo	2000	Directional Downlight	Medium	
A4257	Fortimo	1100, 1300	Lens Wall Washer	Uniform	
A5250	Fortimo	2000	Lens Wall Washer	Uniform	
A4340	LED PAR 20/30*	Various	Directional Downlight	Various	
A4350	LED PAR 20/30*	Various	Lens Wall Washer	Uniform	
A4442	MR-16 MH	to 2100 Im	Directional Downlight	Various	
A4451	MR-16 MH	to 2100 Im	Lens Wall Washer	Uniform	

\*PAR 30 Short Neck.

For wattage information see catalog specification page on website.

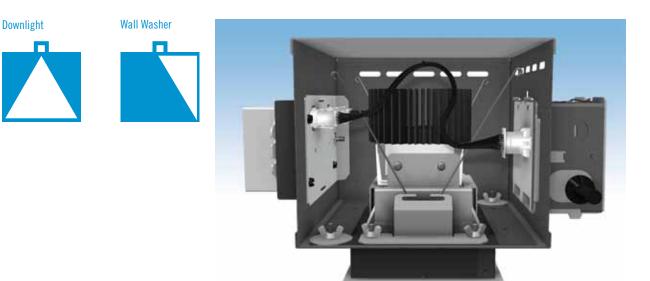
# 4" Square — fixed function

The understated elegance of the Kurt Versen square trim brings a new level of clean sophistication to LED lighting. Fully-sealed corner seams and parabolic contours assure low brightness and a quiet ceiling plane.

This series of products is designed for installation where the functionality of the products will not need to be reconfigured in the future. All models are designed for optimal photometric performance. The fixture's mechanical components are developed to provide a solid platform for the optical system and facilitate the MultiSource<sup>™</sup> requirements for easy transition to future technologies.

#### HIGHLIGHTS

- Low brightness shielding trims available in Specular, Softglow<sup>®</sup> and the new SoftSheen<sup>™</sup> finish. All colors available.
- Plug-and-play ease of maintenance.
- Sliding aperture plate for precise trim alignment.



#### LED Remote Phosphor



LED PAR 20/PAR 30



#### **MR-16 MH**



MODEL	SOURCE	LUMENS FUNCTION		DISTRIBUTION	
B1535	Xicato	1000, 1300	Downlight	Medium	
B3537	Xicato	2000	Downlight	Medium	
B1558	Xicato	1000, 1300	Lens Wall Washer	Uniform	
B3559	Xicato	2000 Lens Wall Washer		Uniform	
B1236	Fortimo	1100, 1300 Downlight		Wide	
B3232	Fortimo	2000	Downlight	Wide	
B1255	Fortimo	1100, 1300	Lens Wall Washer	Uniform	
B1732	LED PAR 20/30*	Various	Downlight	Various	
B1752	LED PAR 20/30*	Various	Lens Wall Washer	Uniform	
B1830	MR-16 MH	to 2100 lm	Downlight	Various	
B1858	MR-16 MH	to 2100 lm	Lens Wall Washer	Uniform	

\*PAR 30 Short Neck.

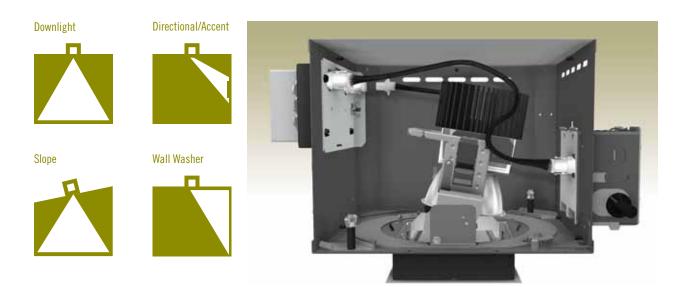
For wattage information see catalog specification page on website.

# 4" Square — flex function

The Flex Function family offers the ability to plan for future changes in the function of the lighting system. All lighting functions are capable of interchanging in the field regardless of which function was originally installed. Downlights can become wall washers as wall washers can become directionals, etc.

#### HIGHLIGHTS

- Low brightness shielding trims available in Specular, Softglow<sup>®</sup> and the new SoftSheen<sup>™</sup> finish. All colors available.
- Plug-and-play ease of maintenance.
- Multiple distributions.
- Sliding aperture plate for precise trim alignment.



#### LED Remote Phosphor



LED PAR 20/PAR 30





MODEL	SOURCE	LUMENS FUNCTION		DISTRIBUTION
B2146	Xicato	1000, 1300	1000, 1300 Directional Downlight	
B2144	Xicato	1000, 1300	Directional Downlight	Medium
B2142	Xicato	1000, 1300	Directional Downlight	Wide
B3147	Xicato	2000	Directional Downlight	Narrow
B3145	Xicato	2000	Directional Downlight	Medium
B3143	Xicato	2000	Directional Downlight	Wide
B2555	Xicato	1000, 1300	Lens Wall Washer	Uniform
B3557	Xicato	2000	Lens Wall Washer	Uniform
B2248	Fortimo	1100, 1300	Directional Downlight	Wide
B3249	Fortimo	2000	Directional Downlight	Wide
B2256	Fortimo	1100, 1300	Lens Wall Washer	Uniform
B3259	Fortimo	2000	Lens Wall Washer	Uniform
B2340	LED PAR 20/30*	Various	Directional Downlight	Various
B2750	LED PAR 20/30*	Various	Lens Wall Washer	Uniform
B2442	MR-16 MH	to 2100 Im	Directional Downlight	Various
B2851	MR-16 MH	to 2100 Im	Lens Wall Washer	Uniform

\*PAR 30 Short Neck.

For wattage information see catalog specification page on website.

Please visit www.kurtversen.com for the latest product information.

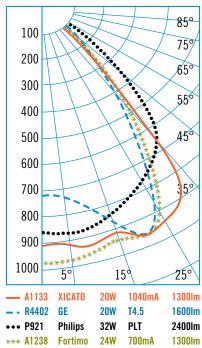
# Photometric performance

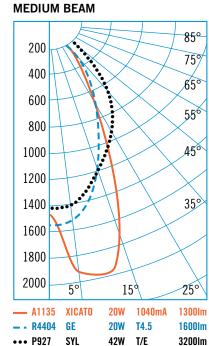
LED sources bring new and exciting opportunities to lighting design. The challenge is to understand how they perform optically when compared to existing technologies. Are they destined to be relegated to broad general lighting applications, or can they be controlled to become true architectural lighting equipment?

The tables and graphs below are intended to provide a comparison of several new Kurt Versen LED products to existing Kurt Versen products using traditional compact fluorescent, metal halide and MR-16 sources.

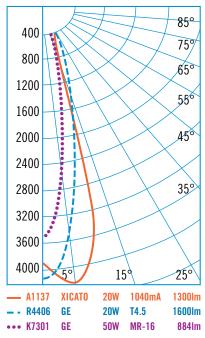
DISTRIBUTION	WIDE			MEDIUM			NARROW			
Source	LED	LED	HID	CFL	LED	HID	CFL	LED	HID	MR-16
Fixture	A1133	A1238	R4402	P921	A1135	R4404	P927	A1137	R4406	K7301
Manufacturer	Xicato	Fortimo	GE	Philips	Xicato	GE	Sylvania	Xicato	GE	GE
Lamp	XSM1300	1300	T4.5	PLT	XSM1300	T4.5	T/E	XSM1300	T4.5	MR-16 EXZ
Hours	50,000	50,000	12,000	12,000	50,000	12,000	12,000	50,000	12,000	2,000
Kelvin	3000	3500	3000	3000	3000	3000	3000	3000	3000	3000
Rated Lumens	1300	1300	1600	2400	1300	1600	3200	1300	1600	884
Fixture Im Output	1223	1197	1150	1296	1250	1129	1408	1182	1152	413
LER	45.3	49.8	47.9	38.1	46.3	47	31.3	44	48	7.9
Total Wattage	27	24	24	34	27	24	45	27	24	52
Beam Angle	74°	72°	74°	84°	54°	44°	64°	25°	22°	18°

#### WIDE BEAM





#### NARROW BEAM



## General information

#### TIMELY DATA

The technology surrounding the new LEDs and metal halide sources continues to evolve at unprecedented speed. To assure the latest up to date information, please visit www.kurtversen.com.

#### DIMMING

Dimming is standard for LED remote phosphor modules.

**Xicato:** 0-10V dimming drivers are standard. Fixtures pre-wired for both dimming and non-dimming applications. Optional Lutron dimming systems provide 100% to 1% dimming and can accommodate three-wire controls as well as the Eco-System digital control.

**Fortimo:** 0-10V dimming drivers are standard. Fixtures pre-wired for both dimming and non-dimming applications.

#### **COLOR, KELVIN TEMPERATURE**

Standard product will be offered in the color ranges listed below. Other options are available and must be indicated at time of specification. See catalog page for ordering information. **Xicato:** Standard: 3000K, 80CRI **Options:** 2700K, 4000K, Artist Series of high CRI also available as an option **Fortimo:** Standard: 3500K, 80CRI **Options:** 3000K, 4000K

#### DRIVERS

Driver selection offers the opportunity to further refine energy use and lighting levels in the Xicato line. By varying the drive current to the LED module, greater energy efficiencies can be gained at slightly reduced light output levels. See catalog specification sheet for details of what options are available.

#### FINISH

Remote phosphor sources can produce aberrant color effects and striations in the pattern when used with specular surfaces. Softglow<sup>®</sup> finishes soften the impact but the lambertian distribution nature of the sources may cause an increase in brightness. Energy efficiency is also impacted.

**SoftSheen™** is a new finish created to mitigate these issues for LEDs. SoftSheen<sup>™</sup> balances these concerns while minimizing the energy consequences, providing a visually pleasing trim with a clean pattern.

#### **TRIM COLOR**

Soft, elegant colors have greatly enhanced the visual environment for countless projects. The Kurt Versen color family continues to be available with LED sources. Combining colors with the SoftSheen<sup>™</sup> finish provides the specifier with the ultimate tools to create customized, sophisticated lighting solutions.

#### **CURRENT LIMITING DEVICE**

A current limiting device is an available option for use with line voltage medium-base sockets. The device acts as a circuit breaker limiting the fixture draw to 25W, thereby addressing the intent of energy legislation. Check your specific code requirements for applicability.

#### HEAT SINKING AND AMBIENT TEMPERATURES

Maintaining proper operating temperature is critical for optimum performance. Kurt Versen has developed unique heat sinking strategies to assure compliance with manufactures requirements. As with all light sources, care should be taken to install products where ambient temperatures are not extreme, which could adversely affect performance.

#### **END OF LIFE**

Xicato and Fortimo modules are rated to perform to 70% output for 50,000 hours. Replacement modules can be purchased from Kurt Versen and installed in the field. Also, the entire module and heat sink assembly can be returned to Kurt Versen for replacement at the factory.

#### **ENERGY STAR**

Energy Star requirements continue to evolve. Most current models achieve the specified levels of performance. For the latest information, please visit www.kurtversen.com.

#### **EMERGENCY LIGHTING**

Emergency battery packs are available as an option for Kurt Versen LED remote phosphor products. Please refer to the catalog pages on our website for the latest information and product availability.

#### **CONVERSION KIT**

Conversion kits to accommodate the MultiSource<sup>™</sup> and Flex Function product lines are available from Kurt Versen.

#### WARRANTY

Kurt Versen warrants metal parts and finishes for five years from date of sale. Lengths of component supplier warranties are listed below. See their websites for full warranty terms and conditions.

Xicato Modules: 5 years

Fortimo Modules and Drivers: 5 years

**Lutron Dimming Drivers:** 3 years standard, 5 years when Lutron field commissioned

**Osram Sylvania Drivers:** 5 years **Philips Xitanium Drivers:** 5 years **Thomas Research Drivers:** 5 years



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