

**WELCOME**

**DON'T MISS OUT ON THESE ADDITIONAL  
RETROFIT OPPORTUNITIES!**



# WHAT IS A HIGHMAX:

- High Power CFL
- Universal Retrofit Product
- Dedicated Retrofit Product
- Vast Wattages For All Applications



# WHY METAL HALIDE AND HPS SHOULD BE REPLACED?

- They're Power Hungry
- No Instant Start
- Poor CRI
- Steep Lumen Depreciation
- Scotopics



Metal Halide



High Pressure Sodium



# THE SCIENCE OF SCOTOPIC LUMENS

## TECHNICAL UPDATE

UPDATE NO: 1655 / ISSUED BY THE PRODUCT DEVELOPMENT LAB IN FAIRFIELD, NJ



"Scotopic Lumens is a scientific way to measure the light we see. It measures the quality of the perceived light. This perception which occurs in our eye is the reason one lamp can look brighter than another, even though they both have the same lumens."

Chart 1

SP Ratio For Several Light Bulbs

Lamp	S/P Ratio
High Pressure Sodium	0.62
Metal Halide	1.49
HighMax 5000K	1.96

Chart 2

Calculating Scotopic Lumens

$$\begin{array}{c}
 \text{150W HighMax} \\
 \text{Lumens} \times \text{S/P Ratio} = \text{Scotopic Lumens} \\
 9,200 \times 1.96 = 18,032
 \end{array}$$

$$\begin{array}{c}
 \text{250W HPS} \\
 \text{Lumens} \times \text{S/P Ratio} = \text{Scotopic Lumens} \\
 24,500 \times 0.62 = 15,190
 \end{array}$$

### HOW A 150 WATT LAMP CAN REPLACE A 400 WATT LAMP AND STILL PROVIDE MORE LIGHT!

#### The Science Of Scotopic Lumens

Scotopic Lumens is a scientific way to measure the light we see. It measures the quality of the perceived light. This perception which occurs in our eye is the reason one lamp can look brighter than another, even though they both have the same lumens.

This phenomenon occurs because the human eye sees light several ways at the same time. (It has to do with the rods and cones in the eye). Technical measuring tools, however, measure light in one dimension only. They do not allow for the perceived value of light that a human eye sees. This perceived value of light is measured in Scotopic Lumens. And different light sources have different Scotopic Ratios. (See Chart 1)

The scotopic lumens of a light source are determined by multiplying the lumens by the Scotopic Ratio of the light source. (See Chart 2: The HighMax CFL has more useable (scotopic) lumens, and uses less energy than the HID lamp; even though the HID lamp had more initial lumens).

Use the Scotopic Lumen Cross Reference Chart below as a guide to replacement wattages. Calculate which is the lowest wattage that can be used to replace the existing HID source.

For more information on these and other MaxLite products, please contact your MaxLite representative or manager

Product "Scotopic" Lumen Cross Reference Chart*	40W	60W	80W	100W	150W	200W
HighMax 5000K						
Mercury Vapor	175W		250W		400W	
High Pressure Sodium	75W	100W	150W	175W	200W	400W
Low Pressure Sodium	90W	180W				
Metal Halide	100W	120W	150W	175W	200W	320-400W

\*Replacement wattages are for comparison only.


**MaxLite** Tel: 1-800-555-5629  
 Fax: 973-244-7333  

**ENERGY STAR PARTNER** E-mail: info@maxlite.com  
 Web: www.MaxLite.com








# RETROFIT PLANNING & SUITABILITY

## LAMP

## DESIGNED TO REPLACE:

## APPLICATIONS:

	<p><b>40 WATT</b> High Power CFL</p>	<p>100 Watt Metal Halides ADVANTAGE: Same Edison Base. Same 10,000 Hour Life.</p>	<p>12' - 15' Ceilings Particularly Recessed Cans.</p>
	<p><b>60 WATT &amp; 80 WATT</b> High Power CFL</p>	<p>Up To 150 Watt High Pressure Sodium, Metal Halide, and all Low Pressure Sodium.</p>	<p>Wherever they fit - Wall Packs, Floods, 1x1 Garage Fixtures, Acorn &amp; Globe Fixtures, Municipal Lots, Commercial &amp; Industrial, Parks, School Campuses.</p>
	<p><b>80 WATT &amp; 100 WATT</b> High Power CFL</p>	<p>Up To 250 Watt High Pressure Sodium and Metal Halide.</p>	<p>All Low Bay Applications. MaxLite Has Edison To Mogul Converters Where Required. Mogul To Edison Converters Available From GoodMart.</p>
	<p><b>100 WATT &amp; 150 WATT</b> High Power CFL</p>	<p>Up To 400 Watt High Pressure Sodium and Metal Halide.</p>	<p>100W - Up To 12' - 14' Ceiling With Aluminium Reflector. 150W - Up To 14' - 18' Ceiling With Acrylic Fixture For Uplight Where Required. (Must Use Inner Reflector For Adaquet FC.)</p>
	<p><b>200 WATT</b> High Power CFL</p>	<p>Up To 400 Watt High Pressure Sodium and Metal Halide.</p>	<p>Up To 18' - 22' Ceilings. Needs Inner Reflector For Adaquet FC. Will Match Means Lumens Of Metal Halide.</p>

## NOTES:

- 1.) Above 22' ceilings you will sacrifice lumens.
- 2.) In retrofit applications, installing high power CFLs will require bypassing the ballast and bringing power direct to the socket.

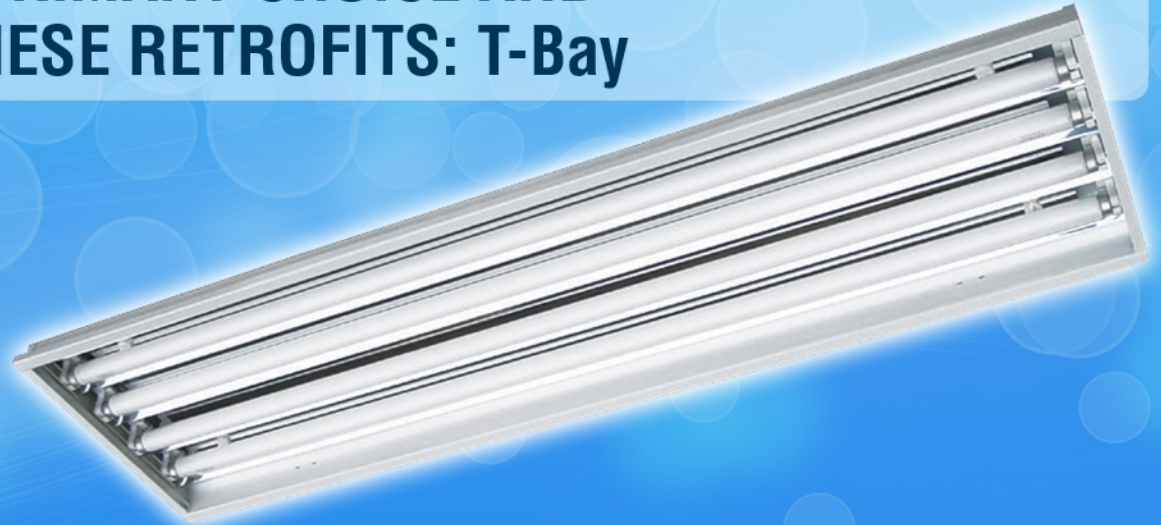


# FOR THESE APPLICATIONS...

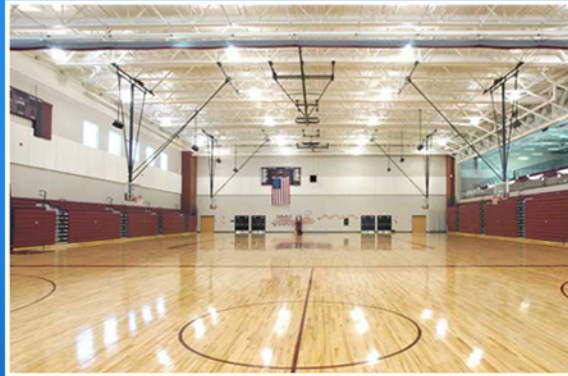
...PREVIOUSLY THE PRIMARY CHOICE AND  
BEST OPTION FOR THESE RETROFITS: T-Bay



**Warehouse's**



**Retail Spaces**



**Gymnasium's**



**Factories**

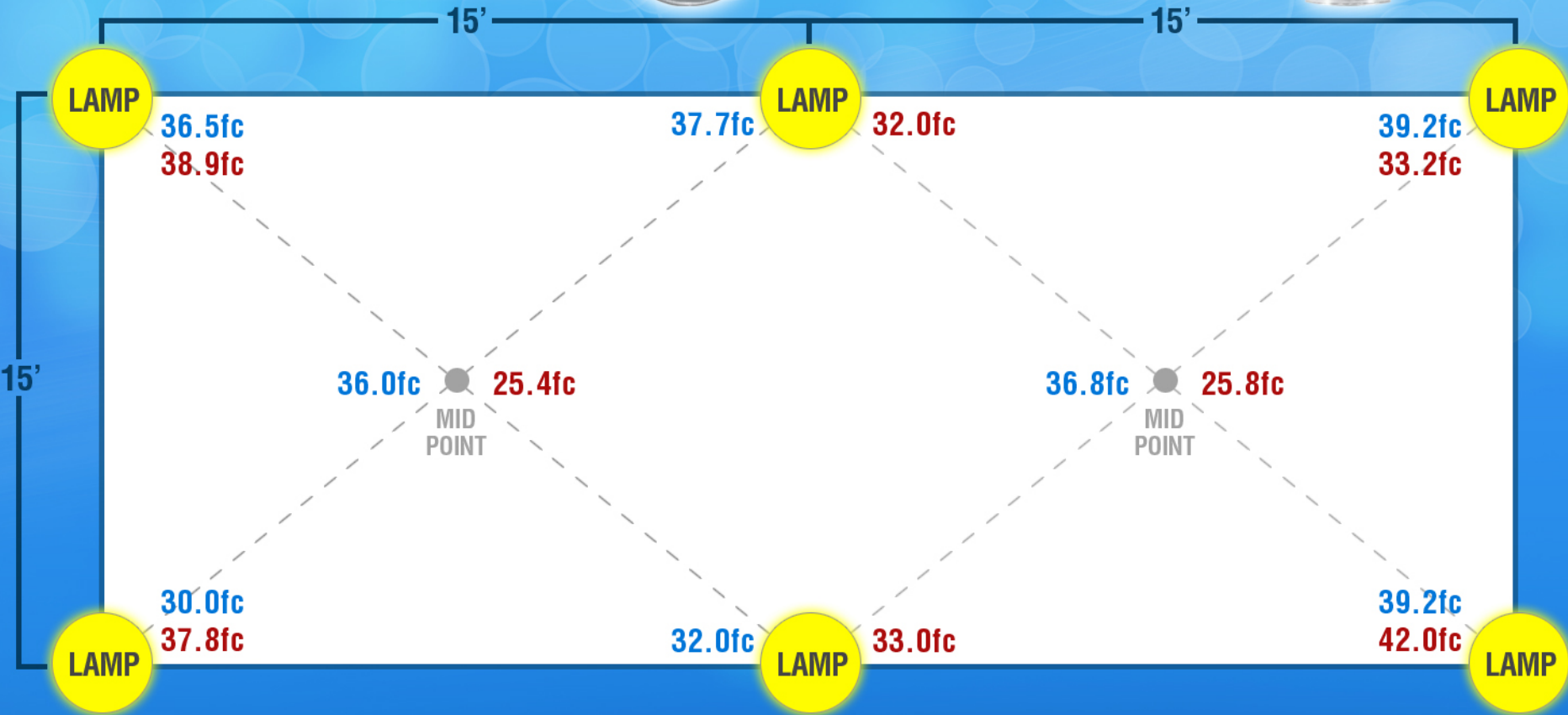


# COMPARISON FOOT CANDLE READINGS

**150 WATT**  
CFL WITH INNER REFLECTOR



**400 WATT**  
METAL HALIDE LAMP



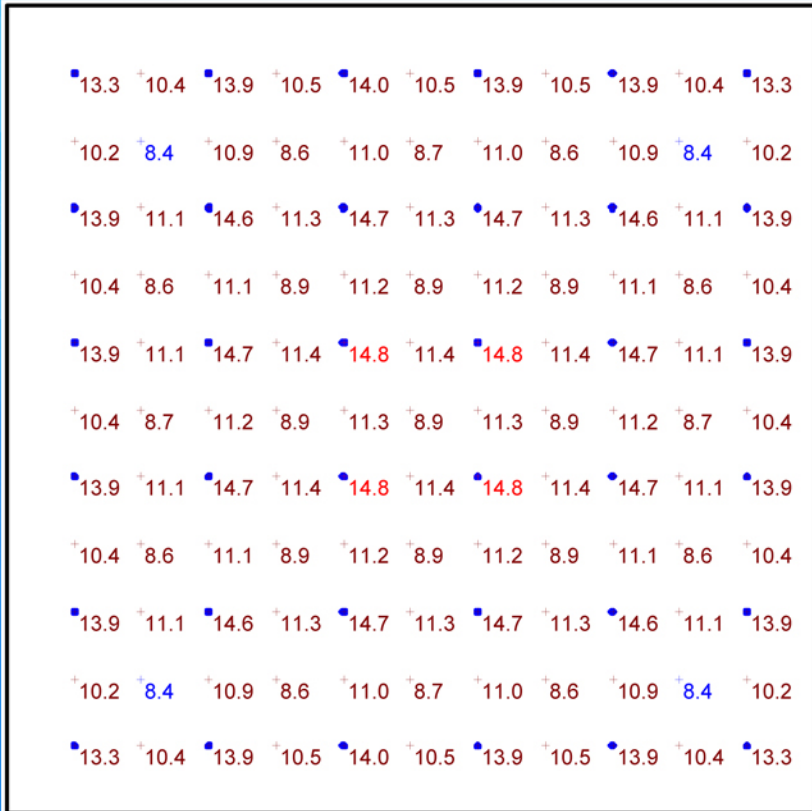
FOOT CANDLE READINGS TAKEN AT FLOOR LEVEL WITH METER PLACED DIRECTLY ON THE CEMENT FLOOR.

MORE UNIFORM LIGHT DISPERSAL ACCOUNTS FOR THE HIGHER 'MID-POINT' FOOT CANDLE READINGS FOR CFL PRODUCT.



# APPLES TO APPLES: HIGHMAX VS. METAL HALIDE

## 200W HighMax Scotopic Lumens

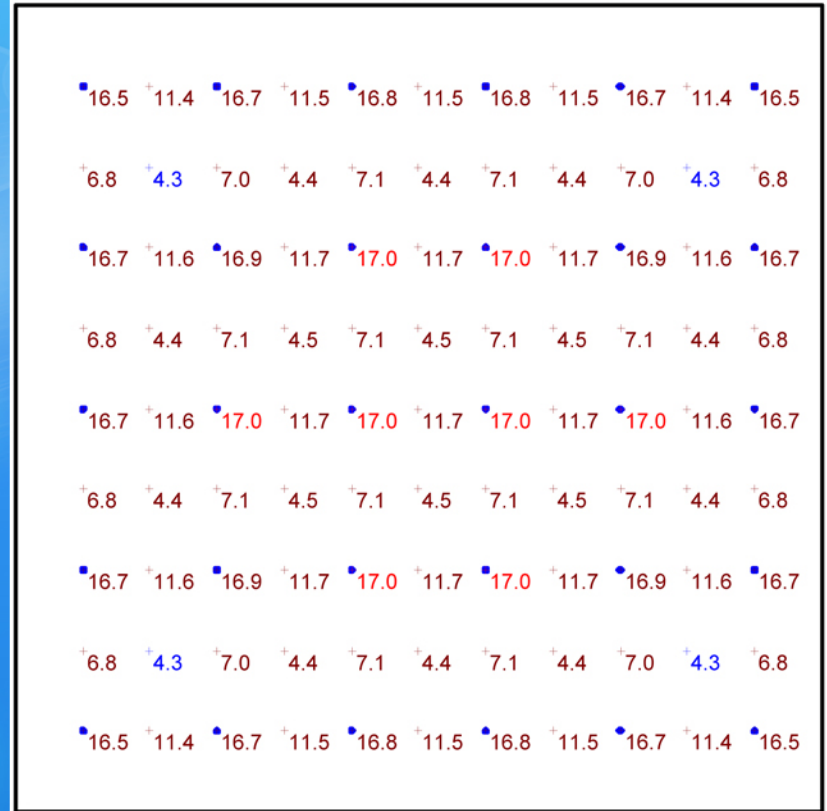


**Plan View**

Scale 1" = 60'

**36 Fixtures at 200 Watts  
each = 7,200 Total Watts**

## 400W Metal Halide Photopic Lumens



**Plan View**

Scale 1" = 60'

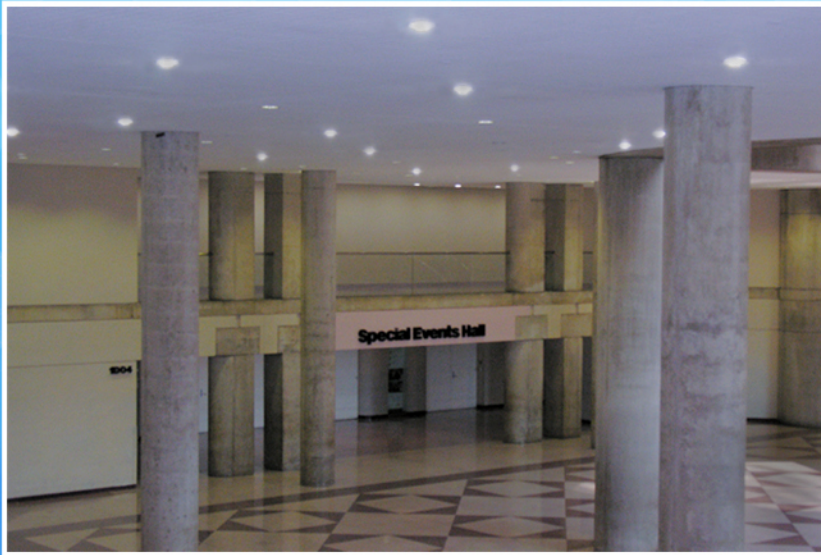
**30 Fixtures at 450 Watts  
each = 13,500 Total Watts**



# BEFORE AND AFTER APPLICATIONS

BEFORE

AFTER



# TESTIMONIALS:

- Alabama University
- Duke University
- Largest Convention Center In New York City
- Con Edison Utility Company In New York
- BMW Plant
- National Gymnasium Franchise
- And Many More!



# SELF TESTING FOR HIGHMAX HIGHBAY CFL LAMPS:

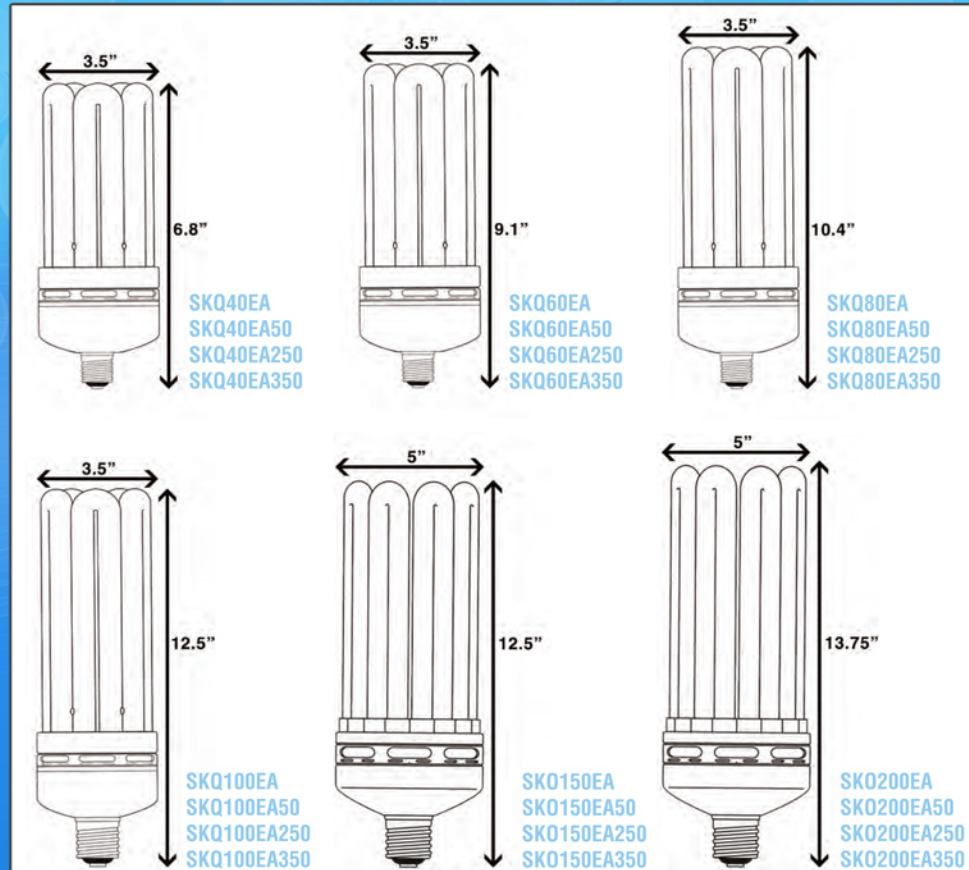


The Dot is the thermal dot placed on the outside of the HighMax ballast housing. The Dot is positioned right next to the most heat sensitive elements of the ballast. When the internal temperature of the ballast becomes too high for the ballast to keep operating, the white dot inside the blue square turns black. This is a sure-fire way to tell when an application is not suitable for a HighMax lamp.

The dot turns black when the internal temperature reaches 82C or 180F. This is not the ambient temperature surrounding the fixture, nor the temperature inside the fixture. It is the internal temperature of the ballast itself.



# MAXLITE HIGHMAX CFL BULBS



## SPECIAL NOTES

- Available with MaxLite's HighBay retrofit kit for retrofitting HID fixtures
- Also available with MaxLite's HighMax acrylic HighBay fixture for retrofit/new construction
- ▲ MTF: Mean Time to Failure
- 1 Year warranty from date of purchase. Not suitable for outdoor use

## SPECIFICATIONS

- Ballast Type >> Electronic
- Starting Method >> Instant Start
- Input Line Voltage >> 120-347VAC
- Input Line Frequency >> 50/60HZ
- Operating Temperature >> 0°-100°F
- Color Rendering Index >> 84

All specifications are subject to change without notice

Contains Mercury (Hg) Dispose of according to Local, State, and Federal Law / [www.lamprecycle.org](http://www.lamprecycle.org)



**HIGHMAX  
200W  
HIGH POWER  
CFLs**

**REPLACE <sup>UP TO</sup>  
400W  
HID**



**M MAXLITE™**

# **MAXLITE'S HIGHMAX LAMPS AND FIXTURES PROMOTION!**

**DID YOU KNOW MAXLITE HIGHMAX LAMPS  
AND FIXTURES ARE A HUGE PART OF OUR  
GONDOLA PROGRAM?**

**Please ask your Sales Rep for details**



The Training Department: Product and Marketing Division:

**M MAXLITE™**

# BUILD YOUR OWN FIXTURE

## BUILD YOUR OWN FIXTURE

HIGH WATTAGE CFLs & FIXTURES FOR HID REPLACEMENT

### CHOOSE YOUR HIGHMAX

STEP ONE **WATTAGE:** 40w, 60w, 80w, 100w, 150w, 200w

STEP TWO **COLOR:** 2700K or 5000K

STEP THREE **VOLTAGE:** 120V or 277V

STEP FOUR **BASE:** E26 (Medium) - 40w, 60w, 80w  
E39 (Mogul) - 100w, 150w, 200w



### CHOOSE YOUR FIXTURE

STEP FIVE **HIGHBAY:**  
Inner Reflector - 150w or 200w  
Spun Aluminum - All Wattages  
Acrylic - All Wattages

**WALL PACKS:**  
Surface Mount - 40w or 60w  
Large Wall Pack - 100w or 150w  
Small Wall Pack - 40w or 60w

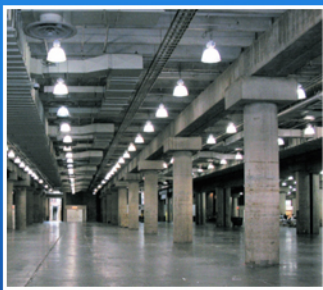


**M MAXLITE™**



# MAXLITE HIGHMAX COMPARED TO OTHER HIGH POWER CFLs

	MOGUL BASE OPTION	OFFERS FULL LINE	THERMAL LABEL ON ALL WATTAGES	UL ON ALL WATTAGES AND BASES	COOLING FAN ON HIGHER WATTAGES	PATENTED	MADE IN KOREA
HIGHMAX	✓	✓	✓	✓	✓	✓	✓
DIRECT CHINESE IMPORTER FROM LA	✓	✓	✗	✗	✗	✗	✗
MAJOR RETAIL RESELLER	✓	✗	✗	✗	✗	✗	✗
CHINESE COMPANY BASED IN TEXAS	✓	✗	✗	✗	✗	✗	✗



# FOR MORE INFORMATION:

For more information about MaxLite's HighMax CFL products and more, visit our blog by clicking the "NEWS ROOM" button at the top of MaxLite.com or go directly to: <http://www.maxliteneewsroom.com>

The screenshot shows the MaxLite News Room website. At the top, there are navigation links for "Home" and "About", and a search bar. Below the navigation is a banner for the "MAXLITE NEWS ROOM" featuring a light bulb icon and a photo of a building. To the right of the banner is an "Announcement" section titled "MaxLite Named 2009 Energy Star Partner Of The Year!" with a logo and social sharing options. The main content area is divided into a left sidebar and a main article list. The sidebar includes "Categories" (Press Release, GU24, Webinars, HighMax, Retrofit, Tech Update, Industry Update, Educational Literature, ENERGY STAR, Mercury, Recycling, The MaxLite, In The News, Awards, The Web, Fixtures), "Archives" (with a "Select Month" dropdown), "Subscribe To The MaxLite News Room" (with an email input field and "Subscribe" and "Unsubscribe" buttons), and "Visit us at MaxLite.com" with the MaxLite logo. The main article list features five items: 1) "LED - 'What's Real And What's Not' - Feb 24th Webinar" (24 MAR, Webinars), 2) "How To Introduce LED Lighting Into Your Environment... - Feb 3rd Webinar" (11 MAR, Webinars), 3) "New Residential Utility Programmer Heather Vail Introduced to Industry!" (23 SEP, Press Release), 4) "200W HighMaxes Replace 400W Metal Halide At UA, Tuscaloosa" (07 SEP, Press Release), and 5) "In The News - NEW LED Products for the marketplace" from The Light Directory!" (24 AUG, In The News). Each item includes a brief description and a "Click here for more..." link. At the bottom of the main content area, there is a "Previous Entries" link.

## **MAXLITE™** SOCIAL NETWORKING:



### Follow us on FaceBook:

Become a MaxLite fan, just go to MaxLite.com and click the FaceBook icon at the bottom of the page!



### Follow us on Twitter:

Follow MaxLite on Twitter, just go to MaxLite.com and click the Twitter icon at the bottom of the page!



### Follow us on YouTube:

Visit the MaxLite YouTube channel today to catch up on any webinars you may have missed. Just go to MaxLite.com and click the YouTube icon at the bottom of the page!





## **QUESTIONS & ANSWERS:**

Thank you everyone for your attention.

This webinar session will be left open for the next 10 minutes to allow time for questions. We will answer as many questions as we have time for right now, but ALL questions will be answered via e-mail within the next 24 hours.

Thanks again for attending, and we hope to speak to you again, soon!

**FOR MORE INFORMATION ABOUT FLAT PANELS; OTHER MAXLITE PRODUCTS; OR FOR LIGHTING QUESTIONS IN GENERAL; PLEASE CONTACT:**

**info@maxlite.com**

**www.maxlite.com**

**973-244-7300**

**Or contact your MaxLite Representative or MaxLite's Regional Sales Manager.**

