

SYLVANIA'S Product Review

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**Topics/New
Products:**

**Fluorescent
Lamps/Ballasts**

Metal Halide

Halogen



Fluorescents Lamps



Octron FO30/800/XP/SS/ECO

- 30 watt 4ft Energy Saving Lamp
- 24,000hrs Lamp Life on Instant Start ballasts. 36,000 on PRS ballast
- Initial Lumens: 2850
- 95% Lumen Maintenance@ 8000hrs
- 85CRI
- 3000k, 3500k, 4100k
- Not Dimmable
- 60degree Min. Start Temperature.
- 6.25% energy savings over 32 watt lamp



Octron FO28/800/XP/SS/ECO

- 28 watt 4ft Energy Saving Lamp
- 24,000hrs Lamp Life on Instant Start ballasts. 36,000 hrs on PRS ballast
- Initial Lumens: 2725
- 95% Lumen Maintenance@ 8000hrs
- 85 CRI
- 3000k, 3500k, 4100, 5000k
- Not Dimmable
- 60degree Min. Start Temperature
- 12.5% energy savings over 32 watt lamps
- \$1.34/\$2.18 per lamp savings/year (3700/6000hrs@ \$0.10kwh rate)



3-lamp System Savings – Lamp Only

Lamp	Ballast System	Watts	Energy Savings	% Mean Lumens @ 8,000 hrs.	% Life
FO32/700	ISN	86	---	100%	100%
FO28/800XP/SS	ISN	76	11.6%	102%	160%

Octron

FO32/25/800/XP/SS/ECO



- 25 watt 4ft Energy Saving Lamp
- 24,000hrs Lamp Life on Instant Start ballasts. 36,000 hrs on PRS ballast
- Initial Lumens: 2475
- 95% Lumen Maintenance@ 8000hrs
- 85 CRI
- 3000k, 3500k, 4100, 5000k
- Not Dimmable
- 60degree Min. Start Temperature, not for use in air handling fixtures
- 22% energy savings over 32 watt lamps
- \$2.36/\$3.83 per lamp savings/year (3700/6000hrs@ \$0.10kwh rate)



3-lamp System Savings – Lamp Only

Lamp	Ballast System	Watts	Energy Savings	% Mean Lumens @ 8,000 hrs.	% Life
FO32/700	ISN	86	---	100%	100%
FO32/25W/800XP/SS	ISN	68	20.9%	90.5%	160%

OCTRON 4 foot life

Series	Watts	Lumens	CRI	Life IS		Life PRS	
				3 hours per start	12 hours per start	3 hours per start	12 hours per start
700	32	2800	75	15,000	28,000	25,000	30,000
700XP	32	2850	78	24,000	36,000	36,000	42,000
800	32	2950	85	18,000	28,000	30,000	35,000
800XP	25	2400	85	24,000	36,000	36,000	42,000
	28	2725	85	24,000	36,000	36,000	42,000
	30	2850	85	24,000	36,000	36,000	42,000
	32	3000	85	24,000	36,000	36,000	42,000
800XPS "Super T8"	32	3100	85	24,000	36,000	36,000	42,000

OCTRON® FBO31 CURVALUME®

More energy saving solutions with OCTRON

- OCTRON CURVALUME SUPERSAVER® T8 lamps
 - 6.5% energy savings over standard FBO31 lamps on instant start ballasts
 - IS life 26,000 hours @ 12 hrs/st, 18,000@ 3hrs/st
 - PS life 30,000 hours@ 12 hrs/st, 24,000@ 3hrs/st
 - ECOLOGIC®
 - 2750 - 2775 initial lumens, 85 CRI
 - 95% lumen maintenance at 8,000 hours
 - Saves \$2.00 per year per 3 lamp luminaire*
 - Qualifies for QUICK 60+® warranty
 - 1st quarter CY 06

* Operating 4000 hours per year on QHE3X32T8/UNV ISN-SC @ \$.10/kWh



OCTRON® FBO32 CURVALUME® XP® SUPERSAVER® ECOLOGIC®



- Lowest Wattage 6" OCTRON CURVALUME lamp
- 2800 Initial lumens
- 94% Lumen maintenance @ 8K hrs.
 - Higher mean lumens than FBO32/700 & FBO32/800 lamps
- 3000K, 3500K & 4100K; 82 CRI
- ECOLOGIC – Designed to pass Federal TCLP test
- Similar application restrictions as T12 SS
 - Krypton/Argon gas fill
 - Minimum Starting temperature: 60° F
 - Not dimmable



OCTRON[®] FO96 SUPERSAVER[®] XP[®] ECOLOGIC[®]



- ***SUPER* SUPERSAVER**
- 55W, 8' Energy Saving T8 lamp
- 7% Energy savings compared to 59W T8 lamp
- ECOLOGIC - Designed to pass TCLP
- 5700 Initial lumens, 94% lumen maintenance
 - Same initial and 6% higher mean lumens than 700 Series
- 3000K, 3500K & 4100K, 82 CRI
- Retrofit lamp for existing T8 instant start systems
 - 18,000 hour life @ 3 hours/start
- Similar restrictions to T12 SS lamps



Exclusive!



DULUX® L 28W SUPERSAVER®

- **Product Description:**
 - DULUX® L 28W SUPERSAVER® (FT40/DL/28W/SS/IS)
 - Direct replacement for the standard 40W DL lamp
- **Key Innovations:**
 - Improved lamp efficacy (100 LPW)
 - Improved fixture efficacy at 35°C fixture ambient
 - Longer life on instant start ballast (20,000* hrs.)
 - High lumen maintenance (~ 88%)
 - Energy efficiency
- **Main Advantages**
 - Easy upgrade/retro-fit
 - No ballast change required
 - Quick pay-back



** Life rating based on 12 hrs per start*

DULUX® L 28W SUPERSAVER®

28W DULUX® L SUPERSAVER® System Comparison (3-lamp fixture on instant start ballast)

Lamp Type	Number of Lamps	Fixture Watts	Ballast Factor	Fixture Efficiency*	Fixture Lumens	Relative Light Output	Relative Watts	Avg. Rated Life
FT40DL/28W/SS/IS	3	88	0.96	77%	6209	95%	90%	20,000**
FT40DL	3	98	0.96	72%	6532	100%	100%	15,000**

* Typical of 3 lamp 2x2 9-cell parabolic fixture

** When operated on and Instant-Start Ballast at 12 hours per start

- Energy savings = \$20/fixture over the life of the lamp
 - Est. 100,000 fixtures
 - \$2.0M in energy savings @ 10¢/KW-hr
 - \$438K/yr @ 4,380 hrs per year

OCTRON® FO32/800XP®/XL/ECO®

■ FO32/800XP/XL/ECO

- Extremely Long life
 - Instant start 36,000 hours @ 3 hrs/st and 40,000 @ 12 hrs/st
 - Programmed start 40,000 hours @ 3 hrs/st and 46,000 @ 12 hrs/st
- 2950 Initial Lumens, 97% lumen maintenance

■ Product Properties

- 32W, four foot, bipin T8
- 3500K and 4100K
- 85 CRI
- TCLP Compliant

OCTRON®

FO32/25W/800XP®/XL/SS/ECO®



■ FO32/25W/800XP/XL/SS/ECO

- Extremely Long life
 - Instant start 36,000 hours @ 3 hrs/st and 40,000 @ 12 hrs/st
 - Programmed start 40,000 hours @ 3 hrs/st and 46,000 @ 12 hrs/st
- Saves 22% energy compared to full wattage lamps
- 2400 Initial Lumens, 97% lumen maintenance

■ Product Properties

- 25W, four foot, bipin T8
- 3500K and 4100K
- 85 CRI
- TCLP Compliant





- Lamp/Ballast System
- No Electrodes
- 100,000 Hour Life
- Instant On/Restrike
- Amalgam Technology

Lamp/Ballast Combinations

150/150 Watt:
12,000 Lumens

100/100 Watt:
8,000 Lumens

100/150 Watt:
11,000 Lumens



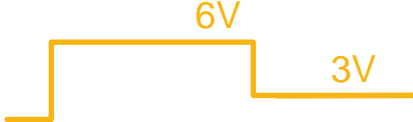
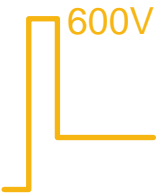
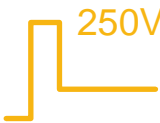

Electronic Ballasts



Ballast Starting Methods

- **Instant Start (IS).** 90%+ of the ballast sold today due to energy savings. Available in low, normal, and high ballast factors. HE are now available from most manufactures
- **Rapid Start (RS).** No longer being manufactured due to high energy consumptions.
- **Programmed Rapid Start or ProStart (PRS).** Combines advantages of IS with longer lamp life.

Starting Method Comparison

	GOOD Instant Start	GOOD Rapid Start	BEST Programmed Rapid Start
Cathode Voltage			
Starting Voltage			
Start Cycles	Up to 20k	Up to 20k	Up to 50k+
Start Temp	0° F	50° F	0° F
Input Power (2 Lamp)	59W	63W	60W
Wiring	Parallel	Series	Series
Lamp Life (3hrs/start)	15k	20k	20K

Lamp Life for F032

<u>Lamp</u>	<u>Ballast</u>	<u>15 Min.</u>	<u>30 Min.</u>	<u>1 Hour</u>	<u>3 Hours</u>	<u>12 Hours</u>	<u>Continuous</u>
700	Instant	3,000	5,000	7,000	15,000	24,000	26,000
	PRS	10,000	14,000	16,000	20,000	28,000	30,000
800	Instant	4,000	7,000	9,000	18,000	24,000	26,000
	PRS	10,000	14,000	16,000	20,000	28,000	30,000
800XP SS	Instant	4,500	8,000	13,000	24,000	30,000	34,000
	PRS	12,000	18,000	24,000	30,000	36,000	38,000
800XP	Instant	4,500	8,000	13,000	24,000	30,000	34,000
	PRS	12,000	18,000	24,000	30,000	36,000	38,000
800XPS	Instant	4,500	8,000	13,000	24,000	30,000	34,000
	PRS	12,000	18,000	24,000	30,000	36,000	38,000
	PSX	20,000	25,000	28,000	30,000	36,000	38,000

Effect of Ballast Factor - FO32

**Ballast factor (BF) -
% of published lumens delivered by ballast**

<u>Lamp</u>	<u>Initial Lumens</u>	<u>Ballast Factor</u>	<u>Delivered Lumens/Watts for 2lp 32w System</u>
FO32/800XP/ECO	3000	.77 ISL	2310/48w
		.88 ISN	2640/55w
		1.20 ISH	3600/73w

T8 High Efficiency Electronic Ballasts

QUICKTRONIC® High Efficiency

- **High Efficiency Systems** over 90% efficient (maximize energy savings)
- **Over 100 LPW** (lumens/watt) with OCTRON® SUPERSAVER® lamps
- **Lowest power T8 Instant Start Systems**



High Efficiency



10,000 BTU



\$300



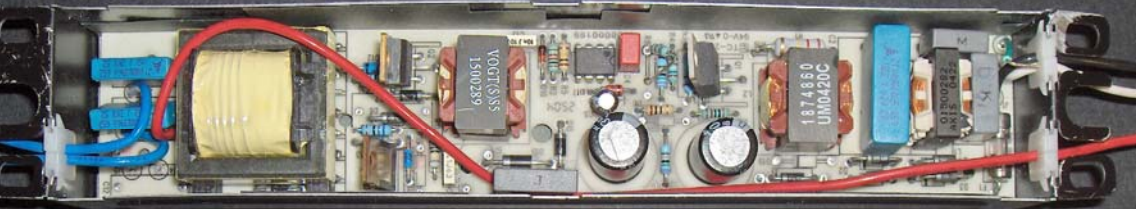
~900 Watts

\$250

~1200 Watts

What is High-efficiency ?

QHE 55 Watts



5280 Lumens



QTP 59 Watts



What's 4 Watts?

- 4 Watts
- 4000 hours
- \$.10/kWh

\$1.60

Using higher grade components



2-Lamp QTP vs QHE-ISN Comparison

Item Number	OSRAM SYLVANIA Description	Input Voltage (VAC)	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	System Lumens	Mean Lumens ¹	Input Wattage (W)	System Efficacy (lm/W)
49906* 49943 49944	QTP2x32T8/UNV ISN-SC <i>10-Pack</i> <i>Pallet Pack</i>	120-277	0.50/0.21	F032/700	2800	2	0.88	4930	4435	50	84
			0.50/0.21	F032/XP	3000	2	0.88	5280	5015	59	89
			0.46/0.20	F030/SS	2850	2	0.88	5015	4765	55	91
			0.43/0.19	F028/SS	2725	2	0.88	4800	4560	52	92
			0.39/0.16	F025/SS	2475	2	0.88	4360	4140	46	95
49969* 49853 49854	QHE 2X32T8/UNV ISN-SC <i>10-Pack</i> <i>Pallet Pack</i>	120-277	0.47/0.20	F032/700	2800	2	0.88	4925	4430	55	90
			0.47/0.20	F032/XP	3000	2	0.88	5280	5015	55	96
			0.44/0.19	F030/SS	2850	2	0.88	5015	4765	52	96
			0.40/0.18	F028/SS	2725	2	0.88	4800	4560	48	100
			0.36/0.16	F025/SS	2475	2	0.88	4355	4135	43	101

2 – 5 watts, ~7% savings

Same Light/Less Power

3-lamp System Savings - Combined

Lamp	Ballast System	Watts	Energy Savings	% Mean Lumens @ 8,000 hrs.	% Life
FO32/700	ISN	87	---	100%	100%
FO32/700	QHE ISN	82	5.8%	98%	100%
FO28/800XP/SS	ISN	76	12.5%	102%	160%
FO28/800XP/SS	QHE ISN	72	17.2%	99%	160%

New Generation Ballast

■ QUICKTRONIC POWERSENSE™ Dimming

- Custom micro-controller for dimming application
- Software-controlled coil heating & lamp current
- Filament detection technology
- High-efficiency design
- Power Line and/or 0-10v control
- T-5 and T-8



QUICK 60+[®] System Warranties

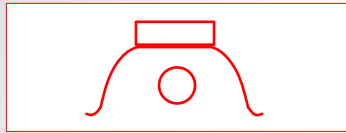
- Ballast / Lamp System Warranty
 - 60 months on ballast from date of installation
 - Up to 36 months on OCTRON[®] T8 lamps
- Choice of the contractor you prefer, Sylvania Lighting Services or a labor allowance for ballast replacements
- One Company (OSI) is responsible for having the lights on
- Warranty applies to new fixtures or a retrofit



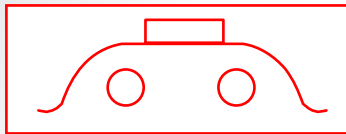
T-5/T-5HO LAMPS



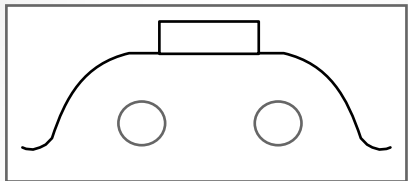
PENTRON® & PENTRON® HO (T5) Fluorescent Lamps



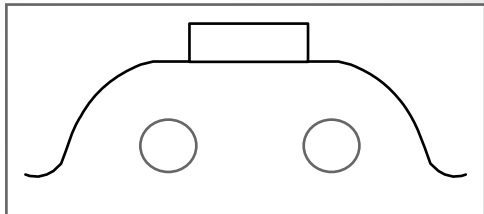
FP54/800/HO



FP28/800



FO32/800



T12

- Color temperatures: 3000K, 3500K, 4100K & 5000K
- 85 CRI
- Luminous efficacy to 104 LPW
- Miniature bi-pin bases
- New, shorter length for better fit into ceiling grids
- Higher temperature tolerance
- Starting temperature -20°F

“5K Lumen Systems” profile options

PENTRON® & PENTRON® HO

<u>PENTRON T5</u>	<u>14W</u>	<u>21W</u>	<u>28W</u>	<u>35W</u>
Lumens	1350	2100	2900	3650

<u>PENTRON HO T5</u>	<u>24W</u>	<u>39W</u>	<u>54W</u>	<u>80W</u>
Lumens	2000	3500	5000	7500

- Maintains 95% light output over life
- 25,000 hours life
- Operate on QUICKTRONIC® system PS & PHO high frequency electronic ballasts
- Light output peaks @ 35C

NOW
available in
ECO, 28w
and 54w

HPS Application Retrofitted with T5/HOs



MH400/U vs. Pentron T5HO System

System Comparison – 4 lamp fixture, 2 ballasts



	MH400/U Magnetic	FP54/841/HO QTP2x54/PHO
Life (hrs)	20,000	25,000
System Watts	458	240
CRI	65	85
Mean System Lumens**	16920	16215
Relative Mean Lumens**	100%	96%
Annual Energy Cost*	\$152.52	\$79.90
Annual Energy Savings*	--	\$72.62

* @ \$0.09/kWh, 3700 hours per year.

** at 8000 hours using typical 72% fixture efficiency for the MH and 95% for the T5HO system.



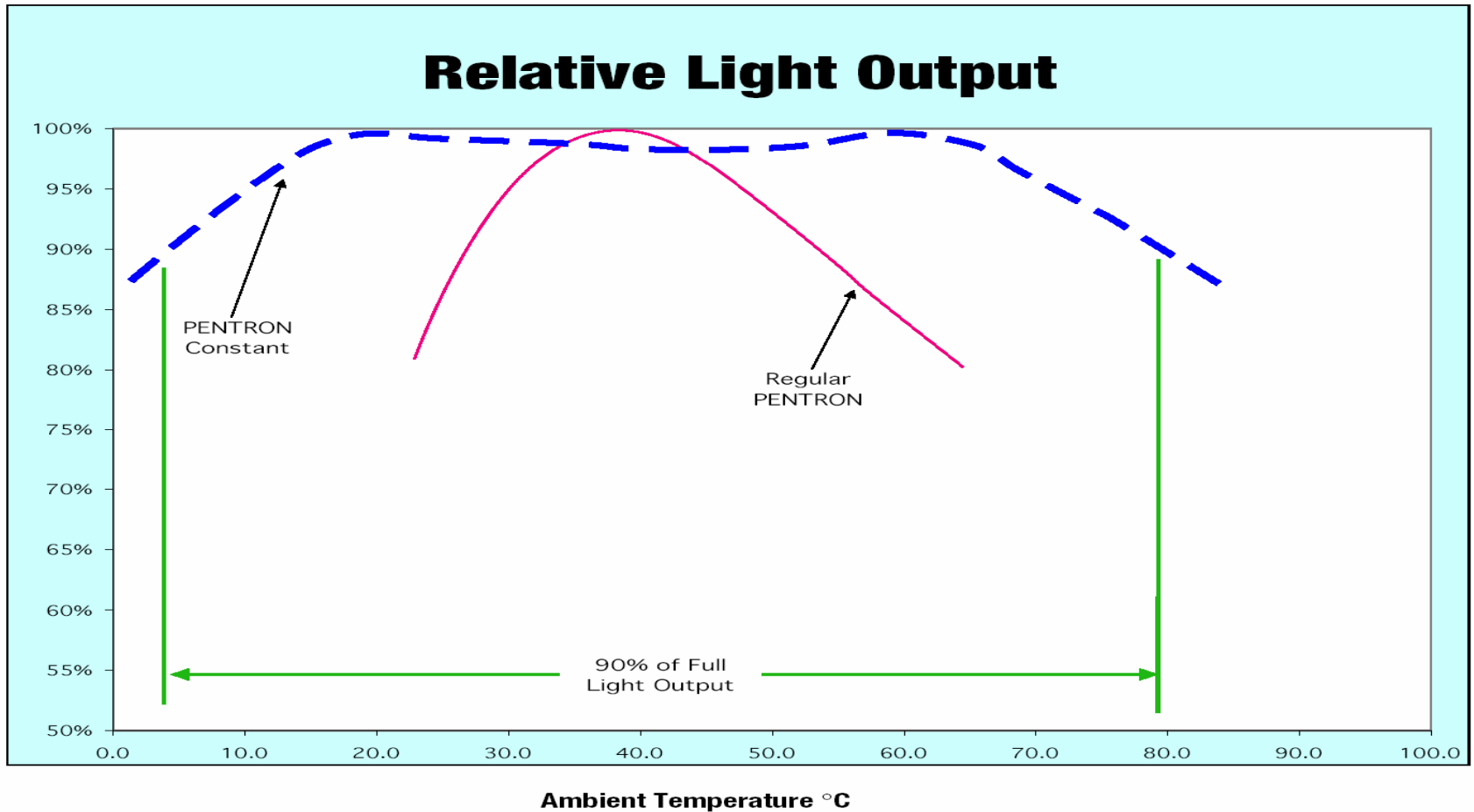
PENTRON® C



- More light output over a wider temperature range
- 90% light output from 5°C (40 °F) to 75°C (165°F)
- New amalgam technology reduces warm-up time
- TCLP complaint
- Ideal for use with 90° C rated QUICKTRONIC® T5HO ballast

LAMP TYPE	NAED	WATTS	CCT (K)	CRI	INITIAL LUMENS	LIFE (hrs)
FP54/830CON/HO/ECO	21041	54	3000	82	5000	20,000
FP54/835CON/HO/ECO	21042	54	3500	82	5000	20,000
FP54/841CON/HO/ECO	21043	54	4100	82	5000	20,000
FP54/850CON/HO/ECO	21044	54	5000	82	5000	20,000

PENTRON[®] C T5 HO Fluorescent



Product Design: High Efficiency Fixtures

Manufactures New Fixtures:

- 89% efficient compared to low 60% for 3 lamp parabolic
- Using T-5 lamps housed within a chamber to insure lamp operates at optimum temperature for maximum light output.
- The T-5 lamp allows for much improvement in optics due to slim size
- Some are using FT style lamps



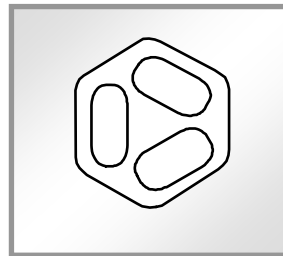
Compact Fluorescents



DULUX® T/E/IN AMALGAM Compact Fluorescent Lamps



18 Watt - 1200 lumens
 26 Watt - 1800 lumens
 32 Watt - 2400 lumens
 42 Watt - 3200 lumens
 57 Watt - 4300 lumens
 70 Watt - 5200 lumens



TRIPLE-TUBE DESIGN

- Maintains >90% light output from 40-140°F
- Universal burning position
- Triple tube design
- 12,000 hours Life
- 2700K, 3000K, 3500K, 4100K
- 82 CRI
- Dimmable
- EOL in lamp for 18-42 watt lamps

Metal Halide/ High Pressure Sodium



Pulse Start Metal Halide

New Technology?



NO

- Starting in 1984 pulse start technology introduced with all low wattage metal halide lamps



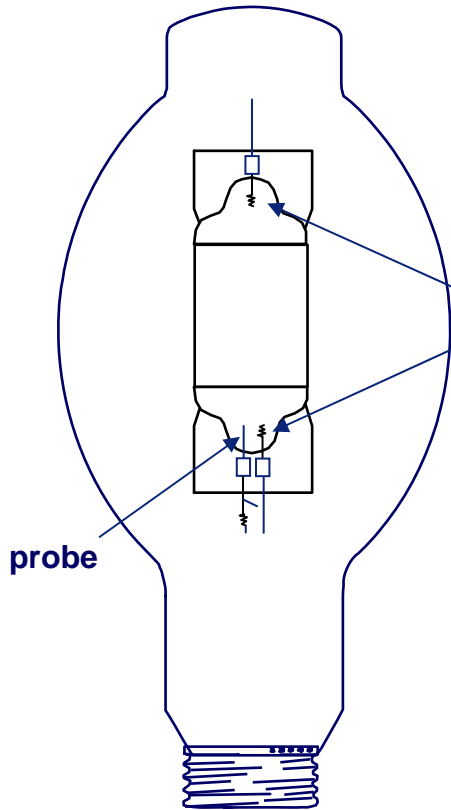
YES

- Industry has recently developed higher wattage pulse start systems and new electronic systems

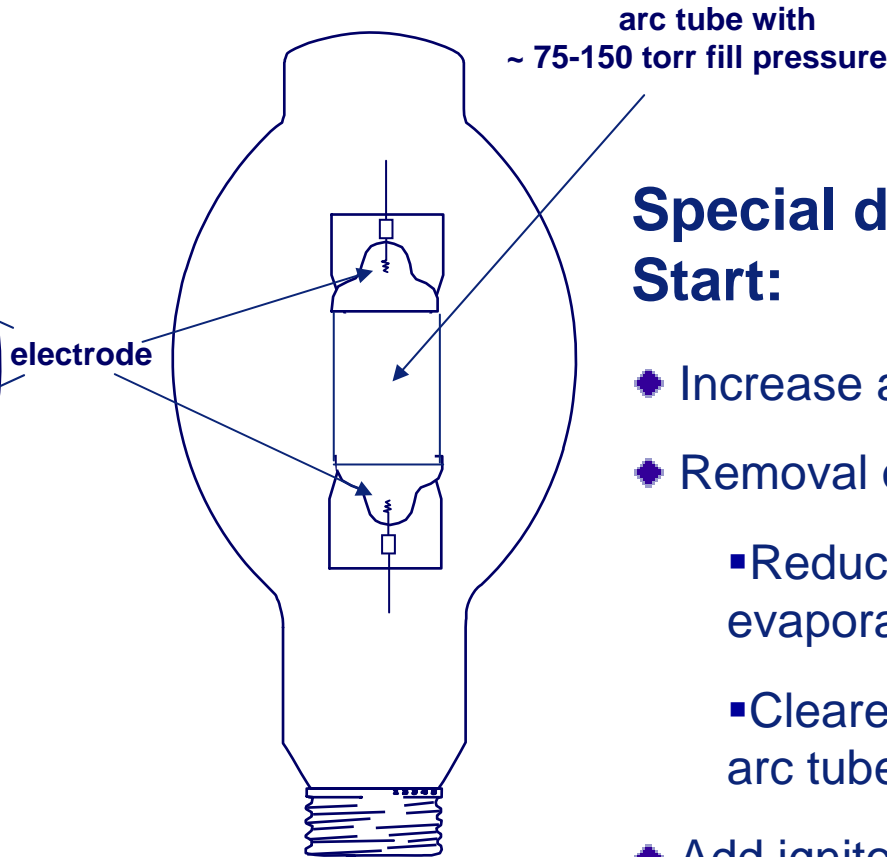


What is METALARC[®] PULSE START?

Probe Start (Standard)



Pulse Start



Special design for Pulse Start:

- ◆ Increase arc tube fill pressure
- ◆ Removal of probe:
 - Reduced tungsten evaporation
 - Clearer, more transparent arc tube
- ◆ Add ignitor to ballast

Pulse Start – What Does It Do?

- Improved lumen maintenance
- Reduced color shift
- More light output over life
- Faster re-strike time
- Potentially longer life

After 8000 Hours

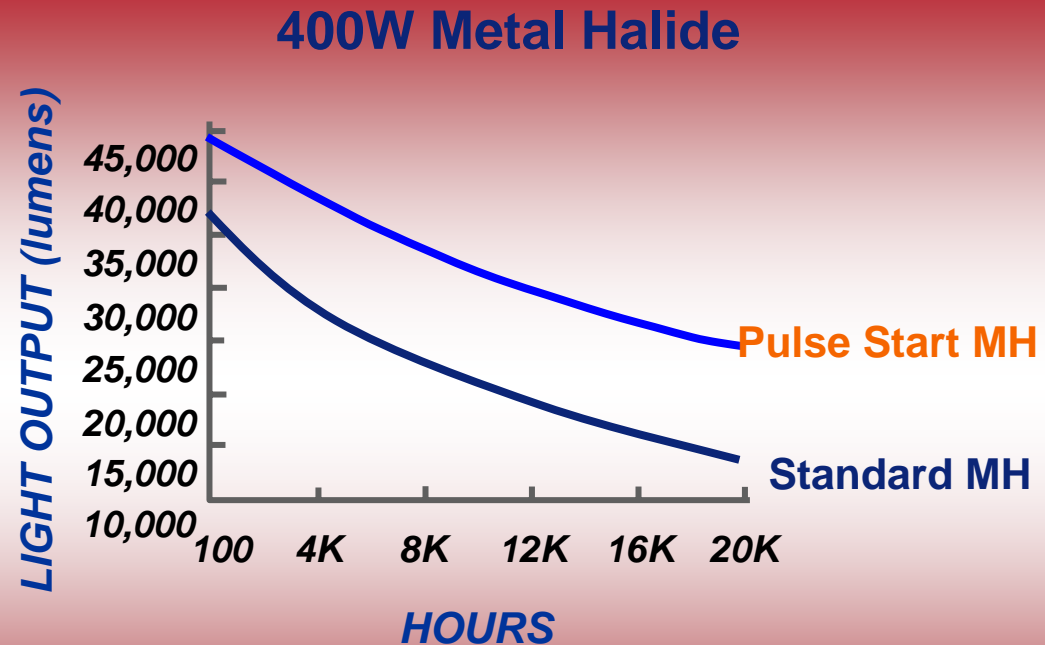
Pulse

Standard



Pulse Start– What Does It Do?

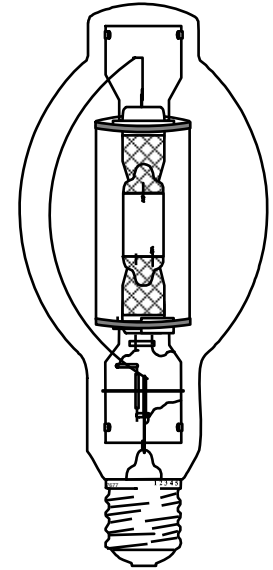
- Improved lumen maintenance
- Longer lamp life
 - 400W systems are rated at 30,000 hours @120 hours/start
 - 250W systems are rated at 15,000 hours @ 12 hours/start
 - Check with manufacturers for specific performance improvements



Improved LLD = More Light = Fewer Fixtures.

Pulse Start Lamps

- MS200/PS/BU-HOR clear and coated
- MS250/PS/BU clear and coated
- MS320/PS/BU clear and coated
- MP320/350/PS/BU clear and coated
- MS 400/PS/ BU clear and coated
- MS 750/PS/BU-HOR clear and coated
- MS1000/PS/U clear and coated

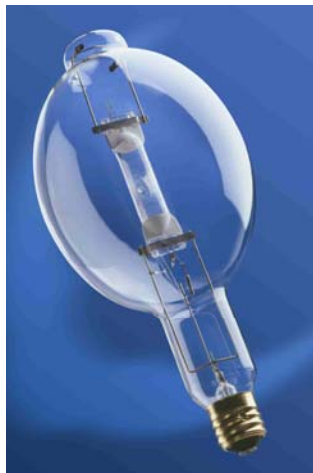


Just introduced: Universal Burn 400w and 250w lamps

METALARC SUPERSAVER

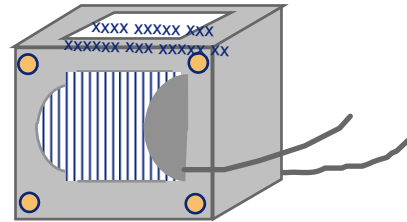
METALARC® SUPERSAVER®

Direct Retrofit... for existing fixture & ballast



950W/SS

=



ANSI M47/E

=



1000W/U

- Operates on Standard CWA Ballast

(Operation not recommended at maximum allowed ambient temperature)

150W METALARC[®] SUPERSAVER[®]

- \$25.00 energy savings*
- Direct retrofit to a 175W metal halide lamp
- Operates on M57 CWA ballasts
- BT28 Outer Jacket
- Available in clear
- Universal operation

**Based on 10,000 hours life at \$0.10/kWh*



360W METALARC[®] SUPERSAVER[®]

- \$80.00 energy savings*
- Initial 100 LPW compared to 90 LPW for M400/U
- Operates on M59 CWA ballasts
- Available in clear and coated
- Enclosed Fixture Version
 - Welded lead-free base
- Open Fixture Version
 - Lead-free glass

MS360/SS/BU-HOR
MSP360/SS/BU-ONLY



**Based on 20,000 hours life at \$0.10/kWh*

950W METALARC® SUPERSAVER®

- Direct replacement for 1000W metal halide in enclosed rated fixtures

M950/SS/U/BT56



- \$90 energy savings*

* Based on 18,000 hours life at \$0.10/kWh

SUPERSAVER[®]: Compared to the Standard



NEW!

	M400/U	MS360	M175/U	M150/SS	M1000/U	M950/SS
Watts	400	360	175	150	1000	950
Life	20,000	20,000	10,000	10,000	18,000	18,000
Initial Lumens	36,000	36,000	14,400	13,000	110,000	103,000
Mean Lumens	23,500	23,000	9,300	8,500	86,300	80,000
Savings/Year		\$16		\$10		\$20
Savings/Life		\$80		\$25		\$90
Payback		68 DAYS		108 DAYS		90 DAYS

No ballast change to reduce the electrical load!

**Calculations based on 4000hr/yr; @\$0.10/kWh; 360 days/yr*



Payback Calculation

- Example: MSP360 vs M400/U
- Burn Hours per Year = 5000 Hours
- Energy Cost = \$0.10/ kilowatt-hour
- Lamp Cost Differential = \$20.00
- Energy Savings* = $\frac{40 \text{ watts} \times 5000 \text{ hrs/yr} \times \$0.10/\text{kWh}}{1000} = \$20/\text{yr}$
- Payback = $20/20 = 1\text{-year}$

Energy Savings Calculator

360W METALARC® SUPERSAVER®

# fixtures	10	50	75	100
Energy Rate/kWh				
\$0.04	\$70	\$350	\$526	\$701
\$0.08	\$140	\$701	\$1,051	\$1,402
\$0.10	\$175	\$876	\$1,314	\$1,752
\$0.12	\$210	\$1,051	\$1,577	\$2,102
\$0.16	\$280	\$1,402	\$2,102	\$2,803
\$0.20	\$350	\$1,752	\$2,628	\$3,504

950W METALARC SUPERSAVER

# fixtures	10	50	75	100
Energy Rate/kWh				
\$0.04	\$88	\$438	\$657	\$876
\$0.08	\$175	\$876	\$1,314	\$1,752
\$0.10	\$219	\$1,095	\$1,643	\$2,190
\$0.12	\$263	\$1,314	\$1,971	\$2,628
\$0.16	\$350	\$1,752	\$2,628	\$3,504
\$0.20	\$438	\$2,190	\$3,285	\$4,380

* Based on an annual burn cycle of 4380 hours
(i.e. 12 hours per day, 365 days per year)
No ballast change required.

METALARC[®] POWERBALL[®] CERAMIC



A Tru-Color[™] Solution

Metal Halide Evolution

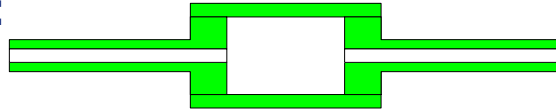


- MP Quartz
 - Viable option for non-"color-critical" applications
- Ceramic Cylindrical
 - Better color stability & higher maintained lumens compared to quartz MH
 - Next step to quartz MH
- POWERBALL®
 - The next generation of metal halide with patented round ceramic arc tube
 - Up to 95 CRI; best "red" rendering

The Future of Ceramic Lighting

Established technology:

Cylindrical arc tube



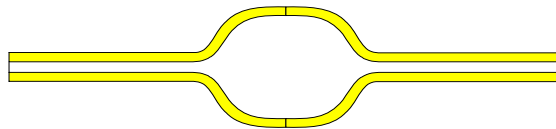
Sintered cylinders and discs

- Different wall thickness and edge of discharge vessel not optimal for thermodynamics of lamp
- Thick walls swallow light



Pioneering Design:

Rounded-off shape



Two identical half spheres

- Best solution for light and maintenance



SYLVANIA has introduced the innovative ceramic **POWERBALL®** shape with 3000K lamps from 39W to 150W.

POWERBALL[®] = SYMMETRY

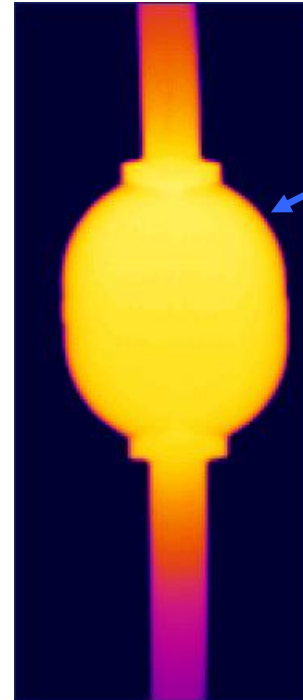
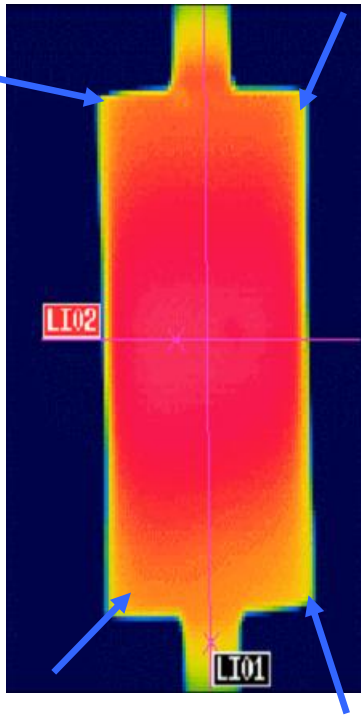
Corners are
"Cold spots"
(away from heat)



Chemicals in
corners do not
mix in arc
stream



More arc tube
corrosion



Uniform Arc tube
temperature



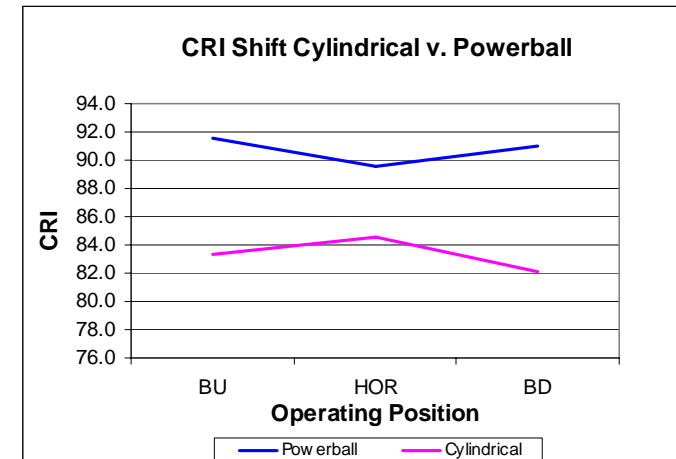
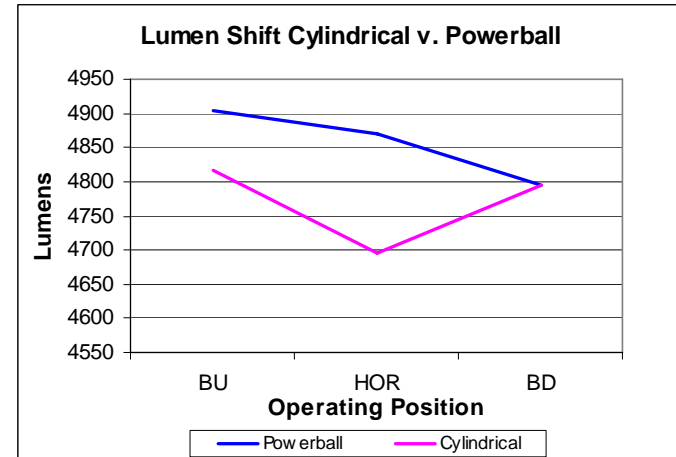
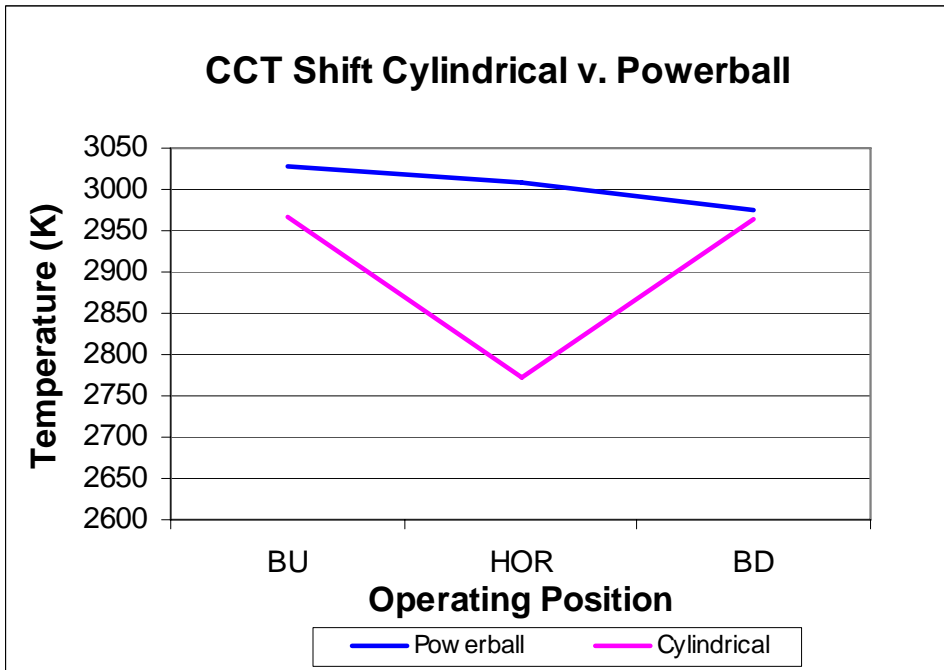
More
chemicals in
arc stream



Less arc tube
corrosion

POWERBALL®

Stable Lamp Performance



Note: Curves based on 70W E17 Ceramic

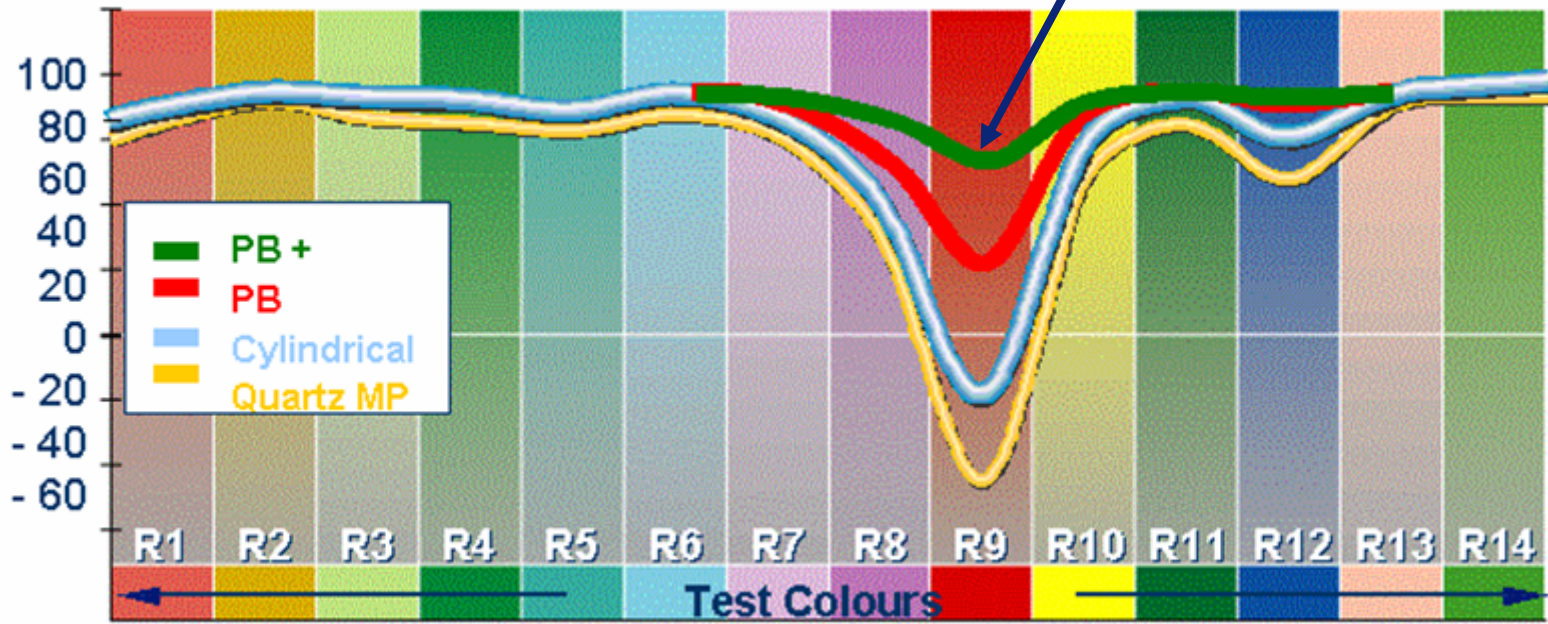


POWERBALL® PLUS: The Future of Ceramic Lighting



- Higher CRI
- More Red
- Additional PAR lenses

Powerball Plus CRI = 95
Life = 12000



Ceramic Availability: Cylindrical & Powerball®



■ T6 (3K)

- MC39T6/U/G12/830
- MC70T6/U/G12/830 PB
- MC150T7.5/U/G12/830 PB

■ T6 (4K)

- MC70T6/U/G12/940 PB
- MC150T7.5/U/G12/940

■ TC

- MC39TC/U/G8.5/830
- MC70TC/U/G8.5/830

■ DOUBLE-ENDED

- MC70T6/DE/830 PB
- MC150T7.5/DE/830 PB

■ E17 (clear & coated)

- MCP50/U/MED/830 PB
- MCP70/U/MED/830 PB
- MCP100/U/MED/830 PB
- MCP150/U/MED/830 PB

■ BT28 & BT37 (clear & coated)

- MCP250/PS/BU-ONLY/940 PB
- MCP320/PS/BU-ONLY/940 PB

■ PAR

- MCP39PAR20/U/830
- MCP39PAR30LN/U/830
- MCP70PAR30LN//U830
- MCP70PAR30LN//U830 PB PLUS
- MCP70PAR38/U/830/ECO PB
- MCP100PAR38/U/830/ECO PB
- MCP150/PAR38/U/830 PB

Halogen IR



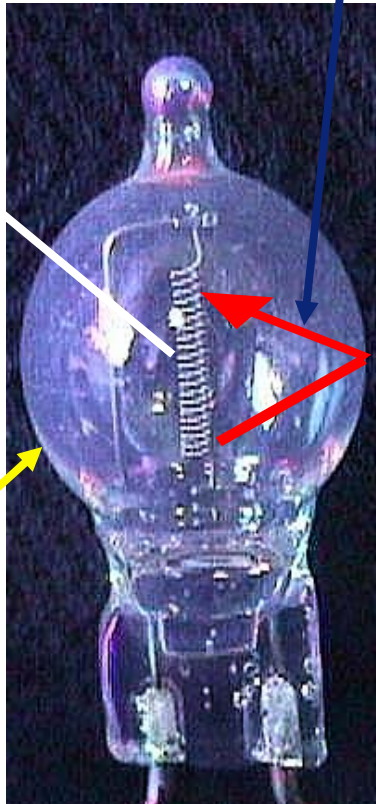
CAPSYLITE IR



IR Coated Capsule

Infrared Energy

Visible Light



Thin Film Coating

- Multi-layered thin film InfraRed coating on outer surface of halogen capsule
- Infrared energy is recycled within the IR capsule
- More visible light generated for each watt consumed
- Lower energy costs and less heat generated

TRU-AIM IR



MR16

- **Infrared-coated capsule**
- **37W → std 50W**
50W → std 65W or 71W
- **Same 4000-hr life as non-IR TruAim's**
- **UV-Stop capsule - blocks UV-B & UV-C**
- **SP (10°), NFL (25°), FL (40°)**

CAPSYLITE® IR™ – Product Line

	PAR20IR	PAR30IR	PAR38IR	PAR38IR Daylight
40W 4000hr	NSP 10° 120V NFL 30° 120V WFL 40° 120V	NSP 9° 120V NFL 25° 120V FL 40° 120V		
50W 3000hr		NSP 9° 120/130V NFL 25° 120/130V FL 40° 120/130V	SP 9° 120/130V NFL 25° 120/130V	SP 9° 120V WSP 12° 120V FL 30° 120V
53W 6000hr			SP 9° 120V FL 30° 120V	
60W 3000hr			SP 9° 120/130V WSP 12° 120V NFL 25° 120V FL 30° 120/130V	
80W 3000hr			SP 10° 120V NFL 25° 120V	
100W 3000hr			SP 10° 120V NFL 25° 120V FL 40° 120V	