



VENTURE LIGHTING®



NATURAL WHITE®

HD

HIGH DEFINITION LIGHTING



BENEFITS OF NATURAL WHITE®

- **Clearer**
- **Sharper**
- **Crisper**

From



VENTURE®
LIGHTING



NATURAL WHITE®

BENEFITS

- Under Natural White® lighting, see **Clearer**
- Objects look **Sharper**
- Colors are **Crisper**

FEATURES

- Superior color rendering; objects appear as they would outdoors
- Work spaces look brighter; tasks, such as reading, become easier to perform
- Excellent color uniformity and stability over life of lamp due to formed body arc tube
- Merchandise and signage are protected from fading with UV Shield® technology - blocks nearly all damaging UV output
- Shrouded arc tube with ANSI Type-O rating - Complies with NEC (National Electrical Code®)
- Operates continuously without weekly shutdowns

90% Lumen Maintenance

Venture's *Natural White* systems have minimal light loss throughout their life (**0.90 lamp lumen depreciation**). Compared to standard probe start metal halide systems, which lose up to 60% of their light through rated life, *Natural White* lamps lose only 20% of their initial lumens over the life of the lamp.

Superior Color Rendering

What could be more natural than sunlight? With Venture's *Natural White* systems, blues are true blue, reds are more vibrant, whites are whiter, and skin tones appear as they do under sunlight. *Natural White* lamps, with 5000K color temperature and 90+ CRI, bring daylight indoors!

To Enhance Any Application

Indoor or outdoor:

- Grocery Store Lighting
- Large Open Spaces
- Retail Lighting
- Lighting With Skylights
- Parking/Car Lots
- Enhanced Color
- Security
- Roadway Lighting



Old HID (high intensity discharge) lighting is just like CRT television, so why settle for "low def" lighting when you can have energy savings and HD Lighting™ with Venture's Natural White® systems



True Colors

COMPARISON

HUMAN EYE SENSITIVITY

The sensitivity of the human eye to different colors of light at various light levels determines the true, or effective, lumen output of a lamp. The eye responds to color depending upon the amount of light available.

Lumens are the standard measure of light output, but light is actually defined as energy evaluated by the eye. Conventional lumen measurements define the light output response of a person only during high light levels (referred to as "photopic" light), typical of daylight and interior lighting. A light meter measures photopic light as seen by the central region of the eye; historically, published lumen ratings are based on the "photopic" ("P") lumen read by a light meter.

When light levels are very low, like starlight, the viewing conditions are referred to as "scotopic." Under these conditions, the eye's visual response changes dramatically. Sensitivity to yellow and red light is greatly reduced, while response to blue light is vastly increased. If lamp lumens under scotopic viewing conditions have been determined using photopic measuring devices, the lumen value does not accurately measure the true amount of light as perceived by the human eye. "Scotopic" ("S") lumens are lumen measurements corrected for nighttime conditions.

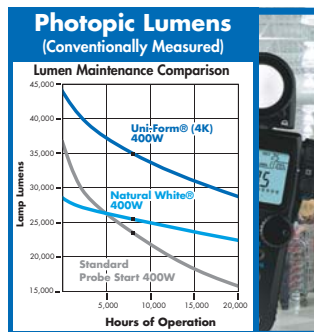
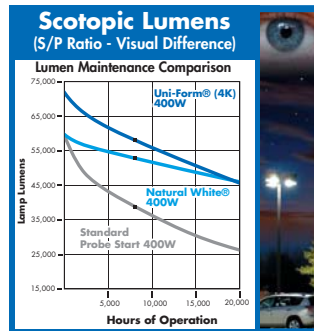
SCOTOPIC LUMENS?

Nighttime Observations

The ratio of light measured by the photopic and scotopic methods is called the "S/P ratio". The S/P ratio for white-blue (5000K daylight) light sources is 2.1. At 4000K the ratio is 1.65, and for HPS lamps the ratio is 0.64. As a result, 4000K light sources are at least twice as effective for viewing at night compared to HPS sources at the same photopic luminance. 5000K light sources are at least three times as effective.

Daytime Observations

Lamps with high scotopic content and high S/P ratios, such as Venture's Natural White® lamps, also improve the ability to see indoors. Human studies have shown that the S/P values, though previously applicable to only nighttime conditions, can be used to describe the "effective lumens" of indoor lighting as well. For example, if two identical objects in 2 different rooms are lighted separately with 4000K and 5000K lamps to equal photopic luminance, objects in the 5000K room will appear 21% brighter $(2.1/1.65)^{0.78}$.

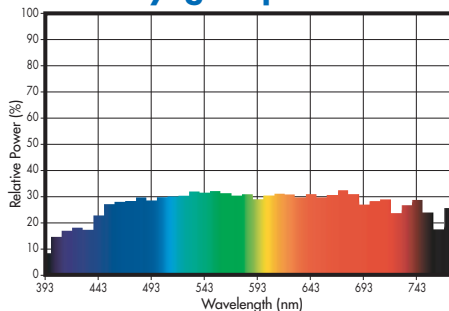


COMPARE, SWITCH AND SAVE!					
Lamp Watts	Venture's 277V Ballast Part	4K System Watts	Natural White System Watts	the Difference	Total Annual Savings Per Fixture*
400	V90U7621	450	425	25	\$11
350	V90U7521	380	355	25	\$11
320	V90U7421	349	324	25	\$11
250	V90U8421	275	260	15	\$7
200	V90U7231	219	204	15	\$7
175	V90U7221	194	184	10	\$4
150	V90U7121	170	160	10	\$4
100	V90U5920	118	108	10	\$4

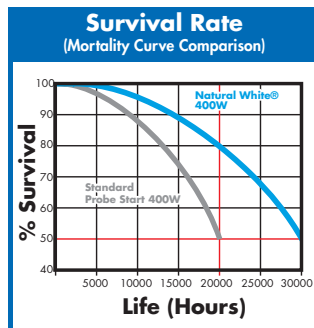
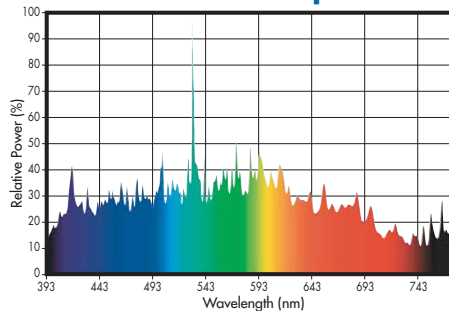
Lamp Watts	Venture's Quad-tap Ballast Part	4K System Watts	Natural White System Watts	the Difference	Total Annual Savings Per Fixture*
400	V90D7612	450	425	25	\$11
350	V90D7512	400	375	25	\$11
320	V90D7412	365	340	25	\$11
250	V90D8411	285	270	15	\$7
200	V90D7312	227	212	15	\$7
175	V90D7211	199	189	10	\$4
150	V90D7110	190	180	10	\$4
100	V90D5932	125	115	10	\$4

Notes: * Based upon 12 hours per day, \$0.10 per kWh

Daylight Spectrum



Natural White Spectrum



Rated life for most Natural White lamps is at 20,000 hours, but the point of 50% survival is at 30,000 hours.



For More Information, Go To

VentureLighting.com/NaturalWhite

Natural White® Lamps

HIGH CRI AND HIGH CCT UNIFORM PULSE START METAL HALIDE LIGHTING SYSTEMS



Benefits

- **90% Lumen Maintenance** (0.90 lamp lumen depreciation)
- High CRI Lighting (Color Rendering Index) **90+**
- The Color of Natural Sunlight: **5000K**



Open Rated LAMPS ANSI Type-O with 90+ CRI, 5000K CCT, LLD factor 0.90

Watts	Lamp Description	Product No.	ANSI Code	Initial Lumens	LPW	Rated Life (hrs)	Finish	Oper. Pos.	Fig.	Case Qty	Additional Notes
60	MP 60W/U/ED17/UVS/PS/950	95060	M__/O	4100	68	20000	Clear	U	B	12	
60	MP 60W/C/U/ED17/UVS/PS/950	95061	M__/O	3900	65	20000	Coated	U	B	12	
70	MP 70W/U/ED17/UVS/PS/950	95071	M98/O	4800	69	20000	Clear	U	B	12	Saves 10 Watts*
70	MP 70W/C/U/ED17/UVS/PS/950	95072	M98/O	4500	64	20000	Coated	U	B	12	Saves 10 Watts*
90	MP 90W/U/ED17/UVS/PS/950	95090	M__/O	6500	72	20000	Clear	U	B	12	
90	MP 90W/C/U/ED17/UVS/PS/950	95091	M__/O	6200	69	20000	Coated	U	B	12	
100	MP 100W/U/ED17/UVS/PS/950	95100	M90/O	7000	70	20000	Clear	U	B	12	Saves 10 Watts*
100	MP 100W/C/U/ED17/UVS/PS/950	92534	M90/O	6700	67	20000	Coated	U	B	12	Saves 10 Watts*
140	MP 140W/U/ED17/UVS/PS/950	95140	M__/O	10200	73	20000	Clear	U	B	12	
140	MP 140W/C/U/ED17/UVS/PS/950	95141	M__/O	9700	69	20000	Coated	U	B	12	
140	MPE 140W/U/ED28/UVS/PS/950	95142	M__/O	10200	73	20000	Clear	U	D	12	Optimized for Electronics
140	MPE 140W/C/U/ED28/UVS/PS/950	95143	M__/O	9700	69	20000	Coated	U	D	12	Optimized for Electronics
150	MP 150W/U/ED17/UVS/PS/950	95150	M102/O	11100	74	20000	Clear	U	B	12	Saves 10 Watts*
150	MP 150W/C/U/ED17/UVS/PS/950	22961	M102/O	10500	70	20000	Coated	U	B	12	Saves 10 Watts*
150	MP 150W/U/ED28/UVS/PS/950	95152	M102/O	11100	74	20000	Clear	U	D	12	Saves 10 Watts*
150	MP 150W/C/U/ED28/UVS/PS/950	95153	M102/O	10500	70	20000	Coated	U	D	12	Saves 10 Watts*
175	MP 175W/BU/UVS/PS/EM/950	95175	M152/O	12800	73	20000	Clear	BU±15°	D	12	Saves 10 Watts*
175	MP 175W/BU/MED/UVS/PS/EM/950	95176	M152/O	12800	73	20000	Clear	BU±15°	B	12	Saves 10 Watts*
200	MP 200W/BU/UVS/PS/EM/950	95200	M136/O	14500	73	20000	Clear	BU±15°	D	12	Saves 15 Watts*
250	MP 250W/BU/UVS/PS/EM/950	19523	M153/O	17500	70	20000	Clear	BU±15°	D	12	Saves 15 Watts*
250	MP 250W/C/BU/UVS/PS/EM/950	19525	M153/O	16500	66	20000	Clear	BU±15°	D	12	Saves 15 Watts*
250	MP 250W/H75/T15/UVS/PS/EM/950	59324	M153/O	17000	74	15000	Clear	HOR±75°	D	12	Horizontal Operation
320	MP 320W/BU/ED37/UVS/PS/EM/950	98520	M154/O	24500	77	30000	Clear	BU±15°	F	6	Saves 25 Watts*
320	MP 320W/C/BU/ED37/UVS/PS/EM/950	95123	M154/O	23500	73	30000	Coated	BU±15°	F	6	Saves 25 Watts*
320	MP 320W/BU/ED28/UVS/PS/EM/950	98530	M154/O	24500	77	30000	Clear	BU±15°	D	12	Saves 25 Watts*
320	MP 320W/H75/T15/S/UVS/PS/EM/950	95320	M154/O	22500	76	26000	Clear	HOR±75°	P	12	Horizontal Operation
320	MP 320W/H75/T15/L/UVS/PS/EM/950	95321	M154/O	22500	76	26000	Clear	HOR±75°	Q	12	Horizontal Operation
350	MP 350W/BU/UVS/PS/EM/950	51628	M131/O	26000	74	30000	Clear	BU±15°	F	6	Saves 25 Watts*
400	MP 400W/BU/UVS/PS/EM/950	57129	M155/O	30500	76	30000	Clear	BU±15°	F	6	Saves 25 Watts*
400	MP 400W/BU/ED28/UVS/PS/EM/950	72315	M155/O	30500	76	30000	Clear	BU±15°	D	12	Saves 25 Watts*
575	MP 575W/BU/BT37/PS/EM/950	95575	M178/O	45000	82	26000	Clear	BU±15°	K	6	
775	MP 775W/BU/BT37/PS/950	24983	M181/O	66000	85	26000	Clear	BU±15°	K	6	
775	MP 775W/BD/BT37/PS/950	24988	M181/O	66000	85	26000	Clear	BD±15°	K	6	

Enclosed Rated LAMPS ANSI Type-E with 90+ CRI, 5000K CCT, LLD factor 0.90

Watts	Lamp Description	Product No.	ANSI Code	Initial Lumens	LPW	Rated Life (hrs)	Finish	Oper. Pos.	Fig.	Case Qty	Additional Notes
575	MS 575W/H75/BT37/PS/EM/950	95577	M178/E	45000	82	20000	Clear	HOR±75°	H2	6	Horizontal Operation
775	MS 775W/H75/BT37/PS/950	24999	M181/E	60000	77	15000	Clear	HOR±75°	H2	6	Horizontal Operation



Dia. = 2.1" (54mm)
MOL = 5.4" (138mm)
LCL = 3.4" (86mm)
Base = Medium (E26)
Narrow Neck



Dia. = 3.5" (90mm)
MOL = 8.3" (211mm)
LCL = 5.0" (127mm)
Base = Mogul (EX39)



Dia. = 4.6" (120mm)
MOL = 11.5" (292mm)
LCL = 7.0" (178mm)
Base = Mogul (EX39)



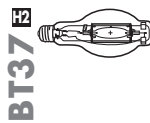
Dia. = 4.6" (120mm)
MOL = 11.5" (292mm)
LCL = 7.0" (178mm)
Base = Mogul (EX39)



Dia. = 2.0" (52mm)
MOL = 8.3" (211mm)
LCL = 5.0" (127mm)
Base = Mogul (EX39)



Dia. = 2.0" (52mm)
MOL = 11.5" (292mm)
LCL = 7.0" (178mm)
Base = Mogul (EX39)



Dia. = 4.6" (120mm)
MOL = 11.5" (292mm)
LCL = 7.0" (178mm)
Base = Mogul (EX39)

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