

DEFINITY™

Infinitely Brilliant



INTRODUCING LED LIGHTING **WITHOUT COMPROMISE.**

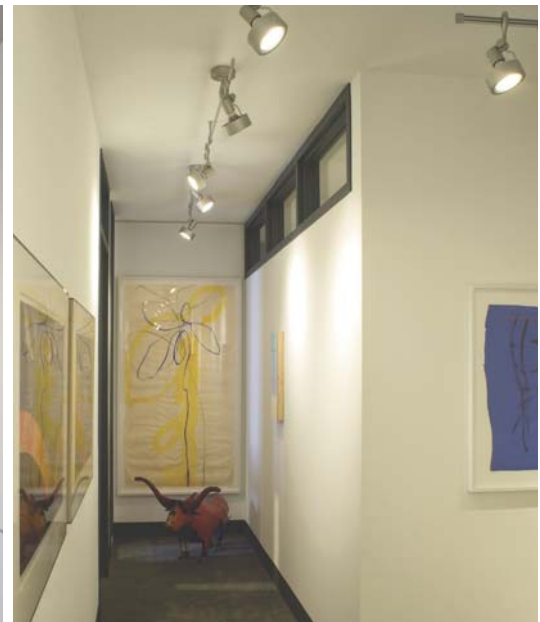
DEFINITY™

Introducing LED lighting without compromise

Lighting Science Group is proud to unveil a new family of LED lamps that delivers a high level of value and an uncompromising measure of quality. Our Definity™ line of leading-edge LED replacement lamps balances performance and affordability – offering an excellent lumen per watt per dollar ratio.

With Definity lamps, there are no sacrifices – brilliantly bright, environmentally friendly, energy efficient and longer life all in one affordable package.

DEFINITY. INFINITELY BRILLIANT.



University of Texas Law School – Austin, Texas.

DEFINITY™ PAR38



DEFINITY™ PAR30 / R95



DEFINITY™ PAR20 / R63



DEFINITY™ G25 / G80



DEFINITY™ A19 / A60



DEFINITY™ MR16





DEFINITY™ PAR30 / R95

DEFINITY™

BRILLIANT DESIGN, DEFINING QUALITY.

The Definity line of LED replacement lamps represents a paradigm shift in lighting technology. By taking a holistic systems approach, each part of the lamp is driven to maximize efficiency and performance. By looking at how each part works within the system, Lighting Science Group (LSG) is able to harmonize the function of the entire system – thereby delivering high performance and efficiency. The Definity line of LED replacement lamps sets a new performance standard of quality in the marketplace and rivals traditional sources in light and performance.

The performance of the new Definity line of Lighting Science LED replacement lamps is validated by an independent testing lab that is approved for LM-79 testing for ENERGY STAR by the United States Department of Energy CALiPER program. Definity lamps go through rigorous binning analysis that is evaluated only at steady state, not just spot measured light, ensuring the color consistency from lamp to lamp.

Definity delivers the complete package in LED lamps:

- High efficacy – 40-56 lumens per watt
- Various beam spreads – 15-40 degrees
- Dimmable – compatible with most dimmers on the market
- Instant on
- Warm, crisp, pleasing light color – CRI 85-90
- Range of color temperatures – 2700K - 5000K
- High lumen output – up to 90W equivalent
- Low wattage – 6-18W
- 5-year limited warranty
- In most instances, payback in less than a year.



DEFINITY™

ENVIRONMENTALLY FRIENDLY...DEFINING GREEN

Definity lamps are the definition of sustainable and responsible lighting. Saving energy saves money and the environment. By producing more light from less energy, Definity lamps reduce the amount of fossil fuel burned to generate power – which means fewer greenhouse gases produced and less mercury pollution created.

Replacing just one 60W halogen lamp in each U.S. household with a Lighting Science DEFINITY PAR30 15W LED lamp would reduce energy consumption by 9.2 billion KWH, which is equivalent to:

- > Eliminating CO₂ emissions from the electricity use of 801,659 homes for one year.
- > Greenhouse gas emissions avoided by recycling 2,224,131 tons of waste instead of sending it to landfills.
- > Carbon sequestered annually by 169,376,155 tree seedlings grown for 10 years.

Source: U.S. EPA Greenhouse Gas Equivalencies Calculator.

LED Lamps Reduce Mercury Pollution

Mercury is a health hazard to humans and animals

27 mg



CFLs release
27 mg of mercury
upon disposal

0 mg



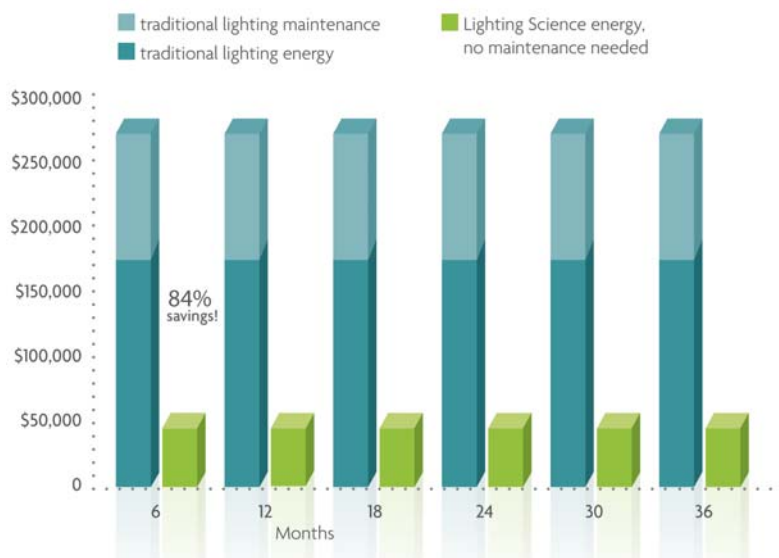
DEFINITY
lamps contain
no mercury

Over a DEFINITY lamp's 50,000-hour life, 8,760 hour/year. CFL contains 4 mg of mercury/lamp and has an 8,000 hour life. 1kWh generates .012 mg of mercury.

COMPELLING ECONOMICS....DEFINING ROI

Definity delivers high lumens per watt per dollar in LEDs, meaning that every lamp installed provides excellent lighting performance at the highest efficiency for the lowest cost. In most instances, Definity replacement lamps can pay for themselves in under one year, with savings captured immediately on lower energy consumption and maintenance costs. To put it simply, you can't afford not to replace traditional lighting with Definity lamps.

RETAIL APPLICATION REPLACING PAR30 HALOGEN WITH DEFINITY LED LAMPS



Assumptions:

1. 24/7 operation
2. Energy cost \$.142/kWh
3. Labor rate per hour \$26
4. Lamp life 5.7 years
5. Indoor with air conditioning
6. Replacing a halogen 60W PAR30
7. Based on 4000 lamps

LED EXPERTISE...DEFINING THE MARKET










Lighting Science Group leads the way in the development and manufacture of lighting solutions in various markets. Our people are not bound by traditional ways of thinking, but focus on how to use LED technologies to drive results and deliver lighting solutions. With 34 patents in LED lighting, another 40 pending, and over 1 million lamps produced, Lighting Science Group is at the forefront of setting the standard for emerging lighting technology. As a recognized leader, LSG plays an important role in building, educating and developing this new and exciting LED lighting market.

Welcome to the new definition of the future of light—
Definity, uncompromising quality and value.



Lighting Science Group –Satellite Beach, Florida.

DEFINITY™ Lamp Range

						
	PAR38	PAR30 / R95	PAR20 / R63	A19 / A60	G25 / G80	MR16 ¹
Comparable Equivalence ²	90W halogen	75W halogen	55W halogen	35W incandescent	50W incandescent	20W halogen
Wattage	18	15	8	8	8	6
Voltage	120 or 230 VAC	120 or 230 VAC	120 or 230 VAC	120 or 230 VAC	120 or 230 VAC	12VDC
Output (lumens)	WW 841 W27 858 NW 965 CW 1092	730 711 802 943	329 317 350 508	429 395 411 570	425 384 441 585	283 246 278 424
Beam Angle	10°/15°/25°/40°	15°/25°/40°	25°/40°	—	—	25°/40°
Efficacy (lm/w)	WW 45 W27 47 NW 53 CW 61	49 46 52 63	41 40 43 86	49 47 55 71	53 48 55 73	48 46 47 71
Color Temp	WW 3000K W27 2700K NW 4000K CW ³ 5000K	3000K 2700K 4000K 5000K	3000K 2700K 4000K 5000K	3000K 2700K 4000K 5000K	3000K 2700K 4000K 5000K	3000K 2700K 4000K 5000K
CRI	84+	84+	85+	85+	84+	85+
Rated Life (hours) ⁴	25,000	25,000	25,000	25,000	15,000	25,000
Warranty	5 years	5 years	5 years	5 years	5 years	3 years
MOL	5.08", 129mm	4.57", 116mm	3.46", 88mm	4.39", 112mm	4.72", 120mm	1.97", 50mm
Rating	cUL, FCC, RoHs	cUL, FCC, RoHs	UL, FCC, RoHs	cUL, FCC, RoHs	cUL, FCC, RoHs	RoHs, ETL
Dimmable ⁵	Yes	Yes	Yes	Yes	Yes	Yes
ENERGY STAR Approved	 WW 120 SP, NFL NW 120 SP, NFL, FL	 WW 120 NFL, FL NW 120 NFL	 WW 120 NFL, FL NW 120 NFL W27 120 NFL		 WW 120 NW 120	 WW 120 NFL, FL NW 120 NFL, FL



Tested to LM-79-08

¹Please see transformer matrix on specification sheet.

²Comparable equivalence based on CCT of 3000K and specified center beam angle.

³CRI for CW color temperature is 68

⁴Early Submission ENERGY STAR Life = 25,000 hours (L70 lumen depreciation design criteria = 50,000 hours.) For directional lamps, Energy Star early submission dictates that manufacturers can only claim 25,000 hour life with 3000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Once a product has been fully qualified, manufacturers may increase the lifetime of a product by demonstrating full compliance with the ENERGY STAR criteria at the new lifetime with Lumen Maintenance at the minimum required test period.

⁵Please see specification sheets or visit www.lsgc.com for dimmer compatibility

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LSG_039

Specifications subject to change without notice.

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