


# THE HIGH-PERFORMANCE ELECTRODE-LESS FLUORESCENT LAMP

- 
- A graphic featuring a blue rectangular stamp with a white border. Inside the stamp, the text "OSRAM ENDURA" is at the top, "60,000" is in the middle in a large, bold font, and "HOURS LAMP LIFE" is at the bottom. The stamp is tilted slightly to the right.

**QUICKTRONIC ENDURA**  
Inductors - Joints Electrodes & more

**QT ENDURA 150-120-240 S**

NOTE	$U_{IN}(V)$	$I_{IN}(A)$	$U_{OUT}(V)$	$I_{OUT}(A)$	$\lambda$	$\Delta T(^{\circ}C)$
$T_1$ EXC 50% 50%	240	0.1	150	1.35	1.35	-10-64
	240	0.2	120	1.78	0.71	(70% 70%)
		0.3	90	2.36	0.59	
		0.4	75	2.8	0.5	
		0.5	60	3.5	0.4	
		0.6	45	4.5	0.3	
		0.7	30	5.5	0.2	
		0.8	15	7.5	0.1	

Range of use  
Output

CE 100%  
50-60 Hz



# OSRAM

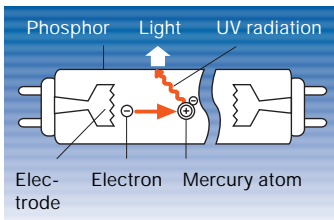
# OSRAM ENDURA – THE HIGH-PERFORMANCE ELECTRODE-LESS LIGHTING SYSTEM WITH A 60,000 HOUR LIFE

*Ideal for tunnel lighting. Safe driving  
from start to finish with bright flicker-free light  
and extremely long relamping intervals.*

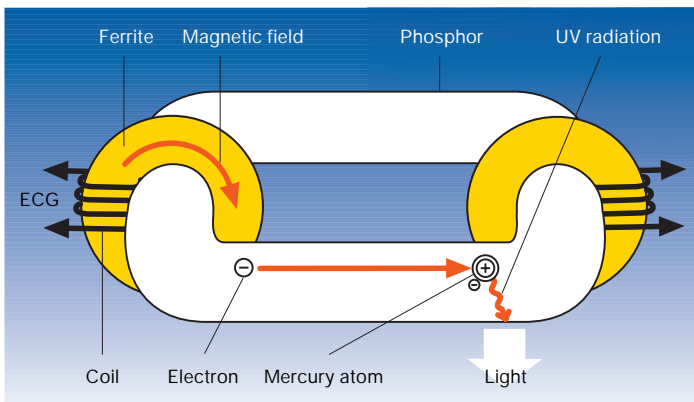
**OSRAM ENDURA**  
**60,000**  
**HOURS LAMP LIFE**

## UNIQUE OPERATING PRINCIPLE FOR UNIQUE ADVANTAGES

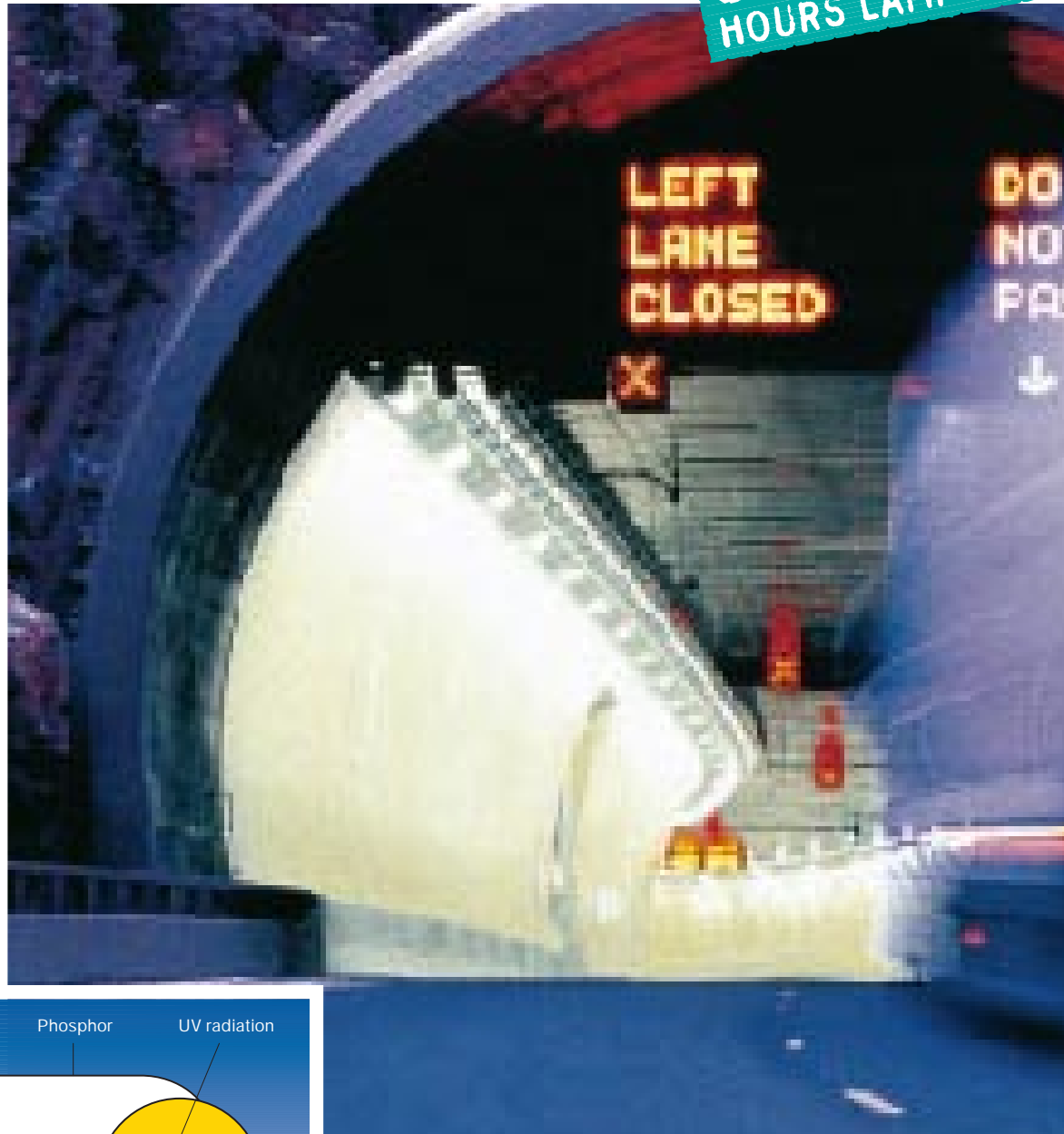
In contrast to conventional fluorescent lamps, the discharge needed to generate light in the OSRAM ENDURA lamp does not take place between two electrodes but without electrodes in a closed "ring" with no starting point and no end point. The energy is "injected" via ferrite rings from outside using magnetic fields. The lamp therefore has no parts that can wear out and lasts so long that it may never need changing.



*Principle of a conventional  
fluorescent lamp*




*Principle of OSRAM ENDURA*




## EXTREMELY LONG LIFE AND HIGH LUMINOUS EFFICACY

OSRAM ENDURA has an extremely long life of 60,000 hours. This is four to five times the normal service life of a conventional fluorescent lamp.

The ENDURA system comprises an electrode-less fluorescent lamp and electronic control gear. With a luminous efficacy of 80 lm/W, it out-performs all previous electrode-less fluorescent lamps. It also achieves luminous flux values that no fluorescent lamp has ever achieved before.



*Ideal for outdoor and street lighting. Bright reliable light from lamps that may never need changing.*



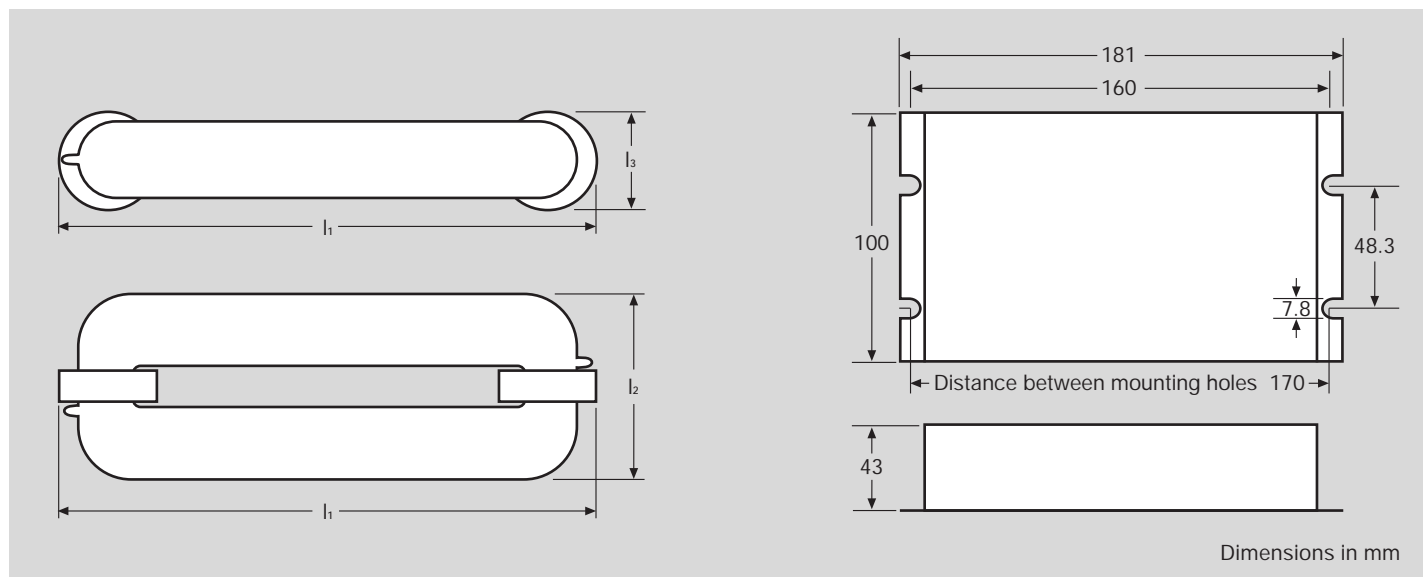
*Ideal for factory lighting. Bright comfortable light for optimum working conditions. Long service intervals reduce the high cost of relamping.*

**RELIABLE LONG-LIFE  
LIGHT WITH IMPRESSIVE  
COMFORT**

Because it uses electronic control gear, the ENDURA enjoys the benefits normally associated with QUICKTRONIC®/LUMILUX® fluorescent lamps, such as instant flicker-free starting and pleasant flicker-free light.

Its extremely long life makes it perfect for all applications in which relamping can only be done at enormous cost or where safety is of paramount importance. The low overall height of the OSRAM ENDURA means it can be used in low-profile luminaires.





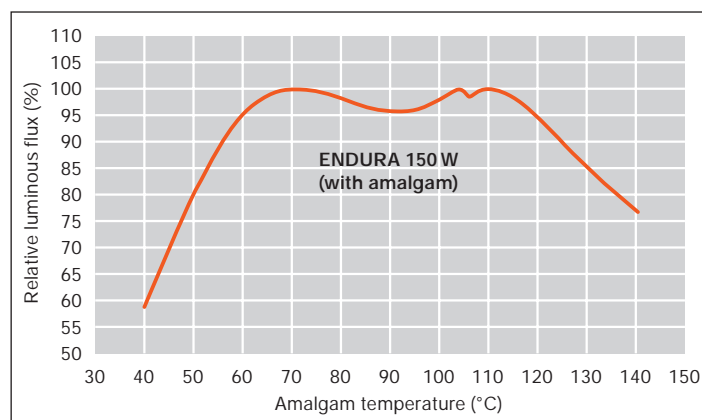
## TECHNICAL DATA

Lamp reference	Rated wattage	ECG	Light colour	Luminous flux	Length $l_1^*$	Length $l_2^*$	Length $l_3^*$	Diameter
ENDURA 150 W**	150 W	QT ENDURA 150	LUMILUX PLUS coolwhite LUMILUX PLUS warmwhite	12000 lm	414 mm	139 mm	72 mm	54 mm
ENDURA 100 W***	100 W	QT ENDURA 100	LUMILUX PLUS coolwhite LUMILUX PLUS warmwhite	8000 lm	313 mm	139 mm	72 mm	54 mm
ENDURA 100 W***	150 W	QT ENDURA 150	LUMILUX PLUS coolwhite LUMILUX PLUS warmwhite	11000 lm	313 mm	139 mm	72 mm	54 mm

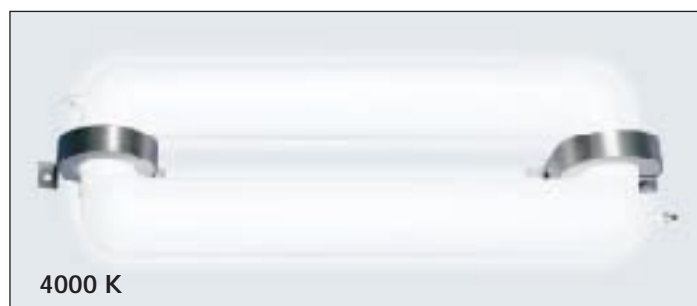
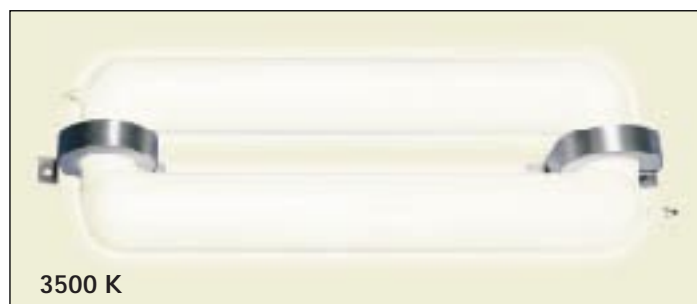
\* Subject to change without notice

\*\* ENDURA 150 W available from the end of 1998

\*\*\* ENDURA 100 W available from the 1st quarter of 1999



Relative luminous flux as a function of amalgam temperature



THERE IS LIGHT. AND THERE IS OSRAM.

OSRAM