


SINGLECAPPED LED LAMPS FOR EXTRA LOW VOLTAGE LED DR111 15W **ECO BRIGHT**



Item code	P _{nom} (W)	T _c (K)	Cap	I (A) (*)	Total flux (lm)	Useful Flux (lm)	Equivalent hal AR111 power (W)	Energy Class	Ec (kWh/1000h)	Axis cd	Beam	Weight (g)
FLLV86LA5	15	3000	G53	1.2	950	740	76	A	17	2400	36°	220
FLLV86LD5	15	5000	G53	1.2	1000	770	81	A	17	2500	36°	220
FLLV86LE5	15	6500	G53	1.2	1050	810	87	A	17	2600	36°	220

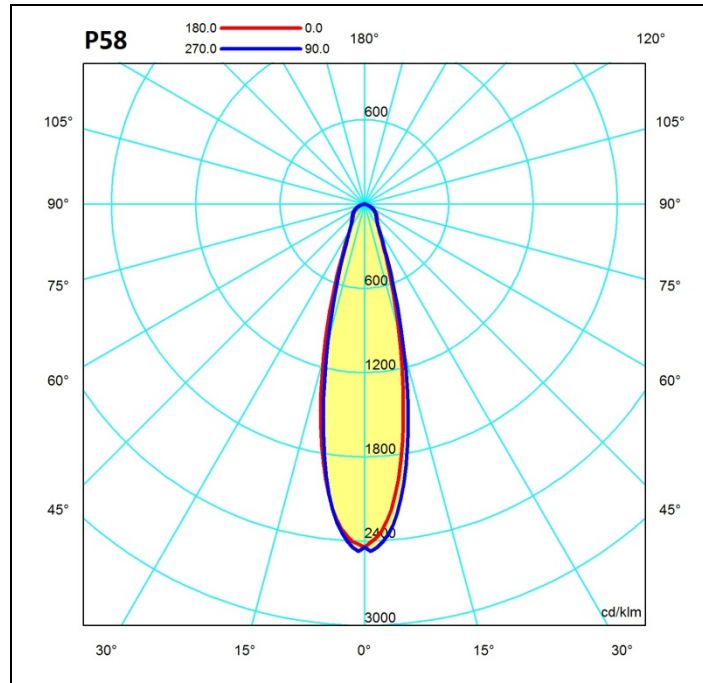
LED lamp classified RISK GROUP 1 in application of the EN62471: 2008 (CIE S009:2002) standards "Photobiological safety of lamps and lamp systems" and in application of the European Directive 2006/25 on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation).

Operating electric conditions	12Vac/DC
Not adjustable	
R _a	> 80
Average lifetime L70, F50	30.000 hours
Lamp Survival Factor @6000h	0.90
Lamp Lumen Maintenance Factor @6000h	0.80
Lamp Lumen Maintenance Factor @30.000h	70% (L70)
Starting time	< 0.4s
Number of Switching cycles before failure	> 15.000
Warm-up time (to 95% of the steady-state luminous output)	< 2.0s
Failure rate @1000h	< 5.0%
Colour consistency	MacAdam ellipses step ≤ 6
Mercury and dangerous substances	Absent
UV and IR radiation	Absent

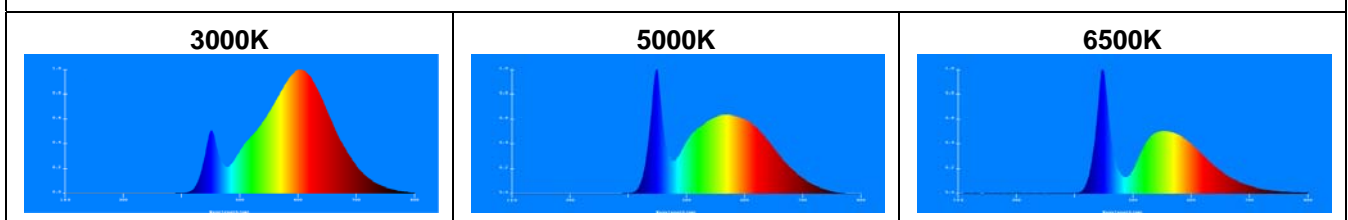
(*) This LED lamp can directly substitute a halogen lamp for ELV if used with any kind of electromagnetic transformer and the optimal reliability is achieved if the user respects the suggested minimum load power of the ELV transformer. This lamp can also work under a 12V High Frequency voltage given by an electronic transformer for filament lamps among those in the subsequent "List of compatible HF transformers". Its correct functioning is not guaranteed under any other electronic transformer but those of the "List of compatible HF transformers". The lamp is also suitable to LED electronic drivers (12VDC or constant current value indicated in the table)

LIST OF COMPATIBLE HF TRANSFORMERS

Brand	Model	Mains Voltage	Load Power
OSRAM	ET-REDBACK 60VA	230-240V	20-60W
PHILIPS	ET-E60	220-240V	20-60W
NVC	ET60DS	220V	35-60W



Spectral Power Distribution 180-800nm



Reference Standards: EN 62838; EN62493; EN62471; EN55015; EN61000-3-2; EN61000-3-3; EN61547
 European Directives: 2014/30; 92/31; 93/68; 2009/125 (Reg.no.1194/2012; no.1428/2015); 2012/27 (Reg.no.874/2012; no.1369/2017); 2011/65; 2012/19



Correct disposal of this product
 (Waste Electrical & Electronic Equipment)
 Applicable in countries with separate collection systems

This graphic symbol placed on the product and on the package indicates that the product should not be disposed with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and responsibly recycle them to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased the product, or their local government office, for details on where and how they can take these items for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract; this product should not be mixed with other commercial wastes for disposal.