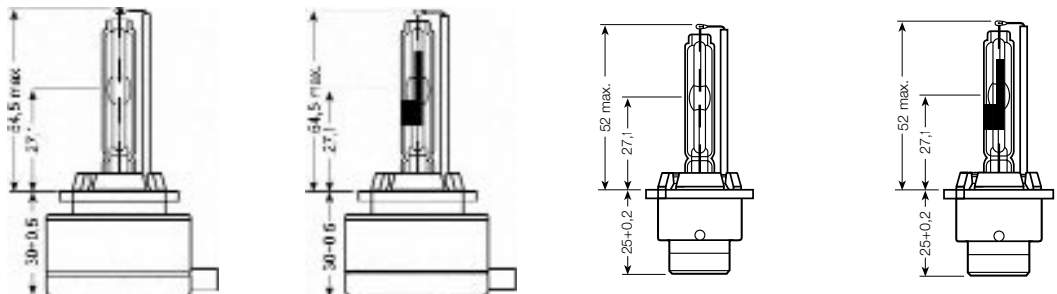
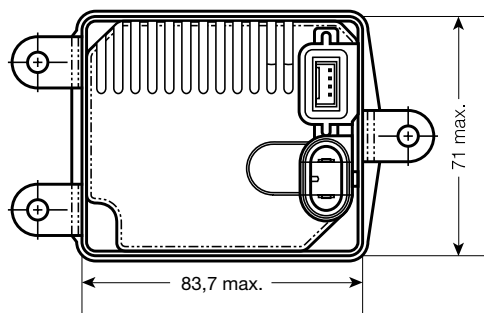
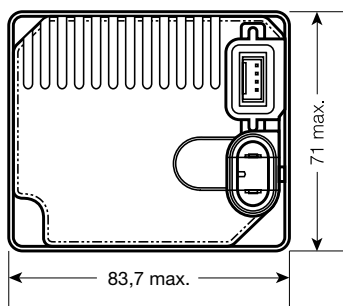


# Product overview



Product reference	D1S	D1R	D2S	D2R
Product number	66042	66052	66040	66050
Application	Projection headlight systems	Reflector headlight systems	Projection headlight systems	Reflector headlight systems
Light source wattage	35 +/- 3 W	35 +/- 3 W	35 +/- 3 W	35 +/- 3 W
Lamp voltage	85 +/- 17 V	85 +/- 17 V	85 +/- 17 V	85 +/- 17 V
Luminous flux				
after 1s.	800 lm	700 lm	800 lm	700 lm
after 60s.	3200 lm +/- 450 lm	2800 lm +/- 450 lm	3200 lm +/- 450 lm	2800 lm +/- 450 lm
Lamp lifetime	B <sub>3</sub> = 1500 h T <sub>c</sub> = 3000 h	B <sub>3</sub> = 1500 h T <sub>c</sub> = 3000 h	B <sub>3</sub> = 1500 h T <sub>c</sub> = 3000 h	B <sub>3</sub> = 1500 h T <sub>c</sub> = 3000 h
Color temperature	4100 K	4000 K	4100 K	4000 K
Base	PK32d-2	PK32d-3	P32d-2	P32d-3



Product reference	XENAELECTRON® 35W XT-D1/12V	XENAELECTRON® 35W XT-D1/24V	XENAELECTRON® 35W XT-D1/12V TAB	XENAELECTRON® 35W XT-D1/24V TAB
Product number	650012	806235	657318	806259
For lamp type	D1S, D1R	D1S, D1R	D1S, D1R	D1S, D1R
Voltage	12 V	24 V	12 V	24 V
Frequency	400 Hz	400 Hz	400 Hz	400 Hz
Nominal current	15 A	8 A	15 A	8 A
Wattage	42 W	42 W	42 W	42 W
Dimensions (L x W x H)	84 x 70 x 30 mm	84 x 70 x 30 mm	124 x 74 x 32 mm	124 x 74 x 32 mm
Temperature	-40...105 °C	-40...105 °C	-40...105 °C	-40...105 °C
Weight	280 g	280 g	320 g	320 g



Product reference	Input Connector	32340	32342	32344	32346	32350	32356	32358	32360	32362
Product number	942797	942704	942711	942728	942735	942742	942759	942766	942773	942780
Length	900 mm	390 mm	540 mm	390 mm	150 mm	280 mm	170 mm	300 mm	240 mm	800 mm
Connection to lamp	-	J1A	J1A	J1A	J1A	J1B	J1C	J1C	J1D	J1D
Connection to ECG	-	J2A	J2A	J2B	J2B	J2B	J2B	J2B	J2A	J2B

\*Detailed technical documentation is available from OSRAM

SEE THE WORLD IN A NEW LIGHT





## A brilliant match

Lamps and ballast units  
for XENARC® HID lighting



# 6 : 0 for XENARC® lights!

## XENARC® – four enlightening advantages

- Produces more than twice as much light output as conventional halogen lights
- Brighter, white light
- High color temperature, similar to natural daylight
- More natural light in comparison to halogen lights



## Additional possibilities for innovative vehicle design

- XENARC® light systems are highly compact
- Provide the basis for progressive headlight design and technology
- Offer much greater scope for distinctive headlight design
- Enhance the aesthetic character of vehicle design and promote brand recognition

## XENARC® lamps – the economical choice

- Consume up to 30% less energy than standard halogen lamps
- Special ballast units for vehicle applications
- Lamp engineered for lifetime of the vehicle
- Premium headlamp systems offer profit opportunities to the car-makers





## The advantages at a glance.



### Comfort and safety go hand in hand

- 50% of all accidents occur in conditions of poor visibility
- Improved roadway illumination reduces traffic risks
- Traffic conditions can be easily ascertained
- Driver is enabled to respond more rapidly to unexpected situations

### Latest technology prevents glare

- XENARC® lights were developed for the most advanced headlight systems
- Light defraction is reduced to a minimum
- Headlights have intelligent leveling and cleaning systems\*
- Oncoming traffic is not dazzled



### Improved visibility – thanks to better roadway illumination

- Light characteristics similar to daylight
- Contrast is intensified
- Potential hazards can be recognized more easily
- Good visibility contributes to safer and more concentrated driving



\*Only for ECE countries

**It's the technology that counts.**

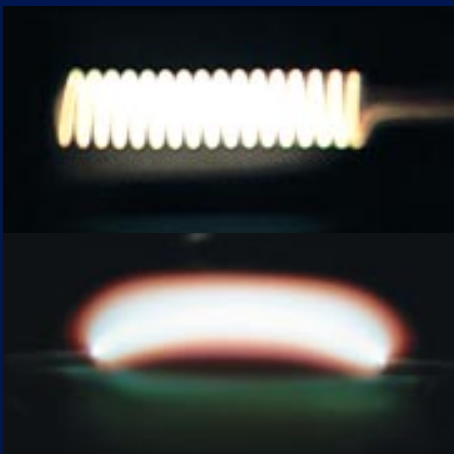


Light distribution with XENARC® lights

### The gas that steals the limelight

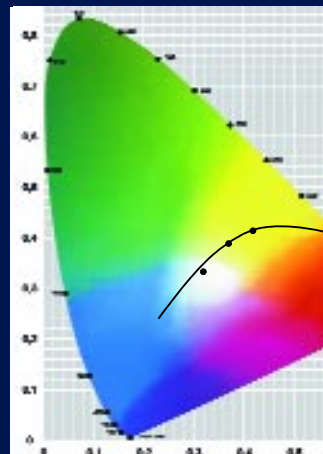
XENARC® lamps are gas discharge lamps. In contrast to halogen lights, they have no wire filament. Light is created by means of an arc, in the form of a controlled plasma discharge between two electrodes: the gas discharge tube is filled with xenon gas, metal halide salts and other substances. The discharge arc is initiated by a pulse of high voltage. The arc of ionized xenon gas heats the tube to such a high temperature that the metal salts vaporize. This metal vapor enables the light to quickly achieve its full potential both in lumens and color temperature.

The arc tube is surrounded by an outer glass jacket that filters out the ultraviolet part of the light spectrum. The system also consists of an electronic igniter and an electronic ballast unit. These electronic devices have been specifically designed to meet the environmental conditions within a vehicle. The ballast controls ignition and sustains the normal operation of the arc.



Wire element of a halogen lamp (above)

Light arc of a XENARC® lamp (below)





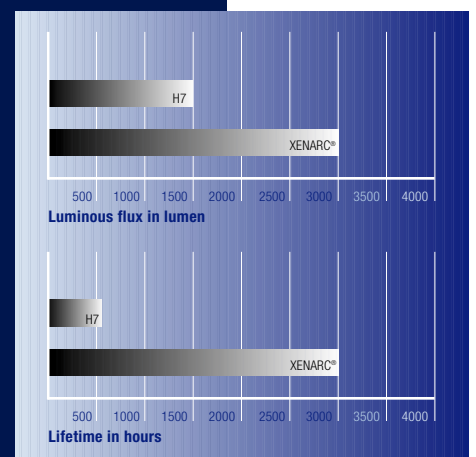
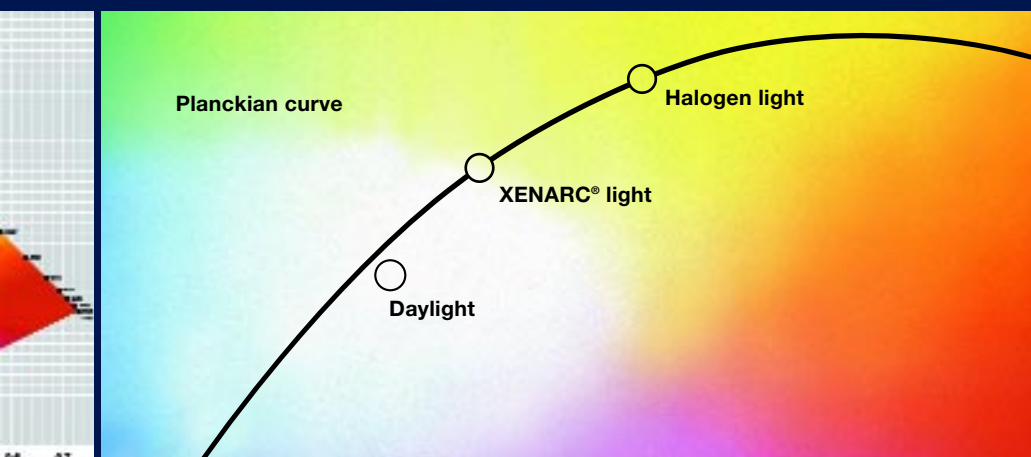
Light distribution with halogen lights

### The radiant champion

A XENARC® lamp generates twice as much light as a modern halogen H7 lamp and requires less energy to do so. The light efficiency is 300% higher than conventional halogen lights and it provides a most noticeable improvement in roadway illumination. Since XENARC® lamps operate in the range of 4100°K, in comparison to 3200°K (halogen light), the color temperature of the light is much closer to that of natural daylight; it is whiter and is perceived as being brighter. Xenon light can help drivers see hazards on both sides of the road.

The failure risk with XENARC® lamps is extremely low. XENARC® lamps have an average lifetime of 3000 operating hours.

### The color temperature of XENARC® lamps in comparison to halogen lamps

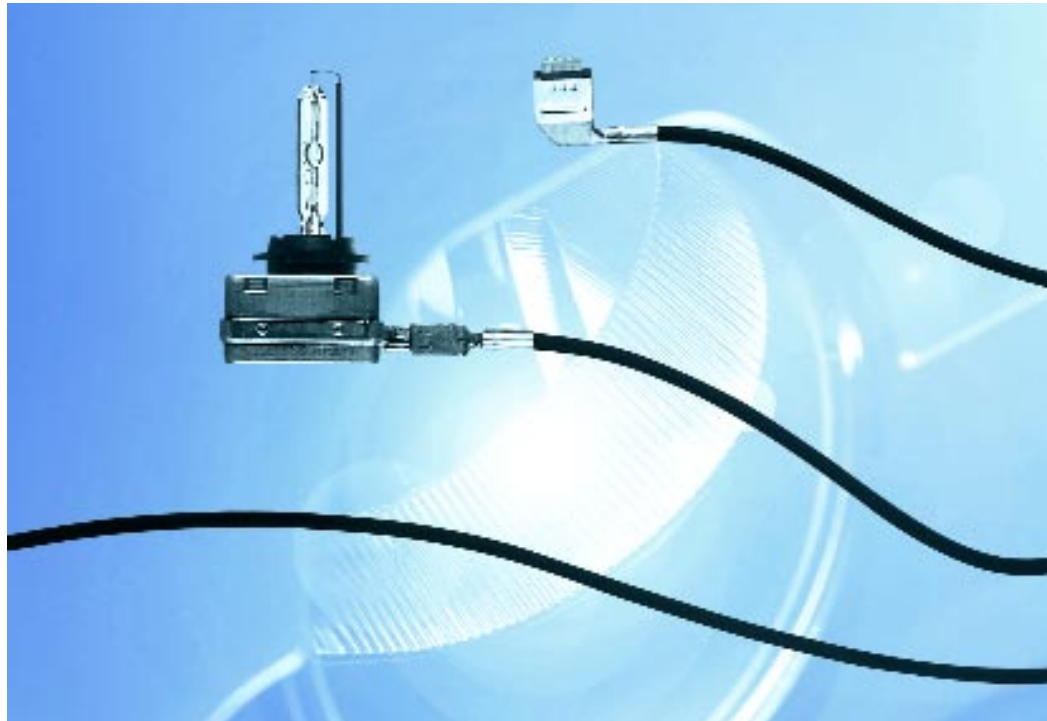




# The brilliant match!

## New technology for greater safety and flexibility

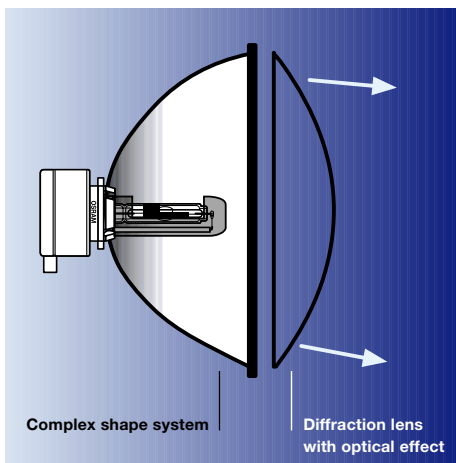
As a result of continuous research and development work, OSRAM has produced a D1 system that offers greater safety and flexibility. In the new system, the ignition circuitry has been removed from the ballast unit, so that the lamp and the ballast unit can be mounted separately in the vehicle. This is possible because the technology for the high voltage ignition function has been integrated directly into the lamp base. This high voltage is generated by a compact transformer specially developed for this purpose. For normal operation, 85 volts is adequate. Upon ignition, there is a momentary requirement of 1,000 volts between the ballast and the lamp. Thanks to this new ignition technology, the cable between the light source and the ballast can be longer and more flexible. This provides the vehicle designers and constructors with greater freedom for mechanical designs. Our new XENARC® D1 system represents a significant step forward. It is an innovative development of the D2 system technology.



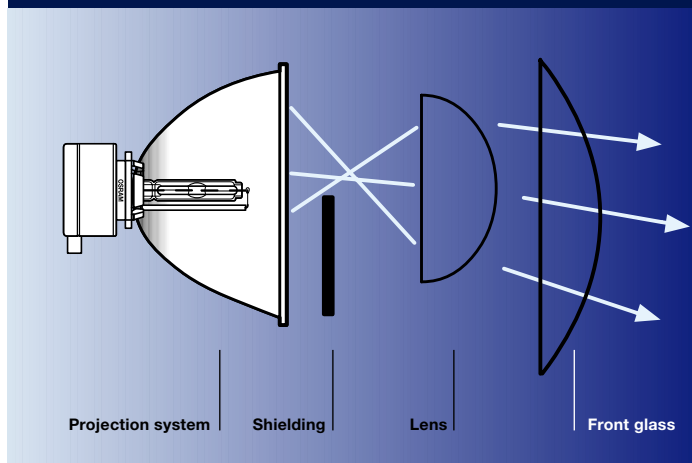
## Complex shape and projection

XENARC® lamps are available for both complex shape and projection headlight systems. In complex shape systems there is a black top material applied directly on the lamp's glass jacket which assists in creating a cut-off line between light and dark areas. These lamps go under the names D1R and D2R. The D1S and D2S lamps are optimized for projection headlight systems. These headlights make use of an ellipsoidal reflector with a projection lens.

XENARC® D1R



XENARC® D1S



## Quality products for XENARC® lighting systems.

OSRAM has developed a variety of different XENARC® lamps to meet the different demands of its customers and to achieve best results in forward lighting applications. While XENARC® technology has been optimized for various headlight systems, it has also been adapted to fulfil the latest requirements of the automotive industry.



### Innovative concepts save space and improve performance

The XENAELECTRON® ballast unit for the 12V and 24V supply voltage has been specially developed for D1 systems. It provides for the optimal operation of the lamp. It is smaller and more compact than conventional D2 ballast units, as the igniter has now been removed from the ballast unit and integrated into the lamp itself. OSRAM offers the D1 system with a variety of socket connectors of different lengths. These enable the unit to be used in almost every possible XENARC® headlight application.

The D1 system consists of the electronic ballast unit XENAELECTRON®, XENARC® lamps and flexible connector cables of different lengths

XENARC® lamps are approved for use in special xenon headlights only. In Europe, such headlights must be fitted with automatic leveling and cleaning systems. Some manufacturers offer headlight conversion kits to enable drivers to upgrade to xenon light. Current road traffic regulations demand that these kits be approved by the appropriate local authorities.



D2S, D2R, D1R and D1S in original size