



# Good news for show business.

Applications for studio, stage and TV.



SEE THE WORLD IN A NEW LIGHT

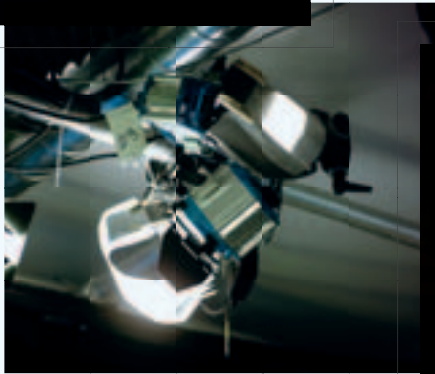
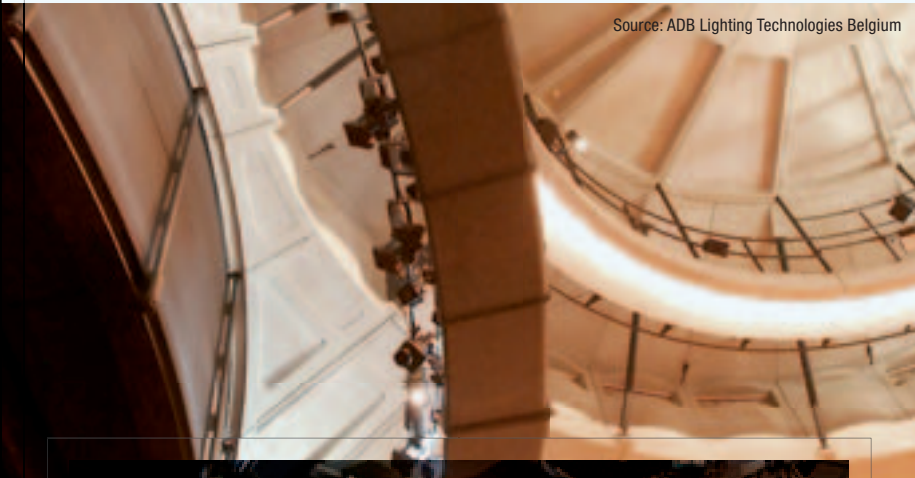




## Setting the stage for great art.

Stage fright? Not any more. Our products for studio, stage and TV guarantee a smooth and dynamic lighting design. We provide the perfect supporting cast in the form of HMI<sup>®</sup>, HPL and studio halogen lamps – all action and no drama! Our powerful and effective lighting solutions will benefit the entertainment industry at every level, from professional film productions to small theatrical events. Winning the Primetime Emmy<sup>®</sup> Engineering Award in 2007 has encouraged us to maintain the highest standards in lighting for the entertainment industry. Our many years of experience, broad product range and history of innovation provide the perfect platform for continued success in this sector.

Source: ADB Lighting Technologies Belgium





# And the winner is ... OSRAM. The award-winning HMI® technology.

Following its Oscar® in 1987, our HMI® metal halide lamp technology received another highly prestigious award in 2007. In recognition of our outstanding achievement in the engineering development of HMI® technology for the television industry, we were presented with a Primetime Emmy® Engineering Award from the Academy of Television Arts & Sciences.



Source: Arnold&Richter Cine Technik GmbH

*On the film set for "Cold Mountain", the award-winning Civil War drama starring Nicole Kidman, Jude Law and Renée Zellweger, HMI® lamps were used as fill lights in ARRISUN spotlights to produce authentic images with authentic daylight in the faithfully reconstructed town of Cold Mountain.*



**Just like the sun – only more reliable.**

For more than 30 years, HMI® lamps have been meeting the toughest demands of the film and TV industry throughout the world – from Hollywood to Bollywood. With an output up to 18,000W, these lamps turn night into day on film and TV sets. Thanks to their continuous improvement and development, they have starred in many films such as the 1990 IMAX film “Titanica”. The new, extremely robust GX51 base and the innovative OSRAM XS technology ensure that HMI® lamps can really show their strengths even when major outdoor shots are needed.



Primetime Emmy® Engineering Award 2007

**HMI®**  
**HMI® lamps are AC-operated metal halide discharge lamps, which have excellent color rendering and photometric integrity throughout their life.**

- Indoor and outdoor shots under daylight conditions, color temperature 6,000 K
- Enormous luminous flux of up to 1.7 million lm
- Very high luminous efficacy of up to 100 lm/W
- High color rendering index (R<sub>a</sub> > 90)
- Impressive mechanical robustness
- Tolerance to high operating temperatures of up to 450 °C at the pinch seal
- Excellent hot restart capability
- Long lamp life of up to 1,000 hours
- Available in wattages from 200 to 18,000 W, single-ended or double-ended

**New DXS series on the rise.**

All double-ended HMI® lamps have been upgraded with our innovative eXtreme Seal technology and are now identified by the abbreviation DXS (“Double Ended with XS technology”). The lamps can now withstand temperatures up to 450 °C at the thermally sensitive area of the pinch seal.

- Typical luminaires**
- PAR/open luminaires
  - Fresnel lens luminaires
  - Soft and flood lighting
  - Follow and moving-head spotlights

- Typical applications**
- Film, TV and video productions
  - Stage lighting (theater, opera, etc.)
  - Exhibition lighting
  - Lighting for major events
  - Professional photography

# When reliability is needed. Studio halogen lamps.

Our studio, stage and TV halogen lamps are excellent examples of the technical advances that can still be achieved in the development of lamps. The key to their success is the combination of high-quality quartz and state-of-the-art lamp technologies. The result is a powerful and economical solution for stage, film and TV lighting.



Source: ADB Lighting Technologies Belgium

*The unique atmosphere at the Glyndebourne opera festival in southern England is now an open secret. Classic operas such as "Othello" can be staged in perfect lighting thanks to our halogen lamps – used here in profile spotlights.*



**The culmination of years of experience: technical perfection.**

Our studio, stage and TV halogen lamps not only meet stringent requirements in terms of luminous flux, luminous efficacy and color temperature, but also tough economic and durable operating demands. They are compact, heat-resistant and can be used in many operating positions. Halogen lamps are manufactured from high-quality components and feature biplanar technology. Thanks to biplanar technology, the 1,000W studio halogen lamps for example have an up to 50 % higher luminous intensity in spotlight settings.

**Halogen lamps**

OSRAM studio, stage and TV halogen lamps offer high luminous efficacy with low power consumption, and a relatively high proportion of visible light compared with infrared thermal radiation.

- High output up to 20,000 W
- High luminous efficacy
- High luminance
- Constant color temperature throughout their life (3,000–3,400K depending on type)
- Instant light
- Operation at line voltage
- Dimmable
- No mercury, so no special waste disposal requirements

**New lamp with XS**

OSRAM has launched the compact and thermally robust single-ended 64748XS studio lamp, the first halogen lamp with XS technology. It is ideal for ellipsoidal reflector spotlights.

- For compact luminaire design with no compromises on luminous flux or lifetime
- eXtreme Seal technology allows maximum operating temperatures of 450 °C at the pinch seal
- Significant reduction in the light center length (LCL = 46.5 mm)
- Biplanar filament

**Typical luminaires**

- PAR/open luminaires
- Fresnel lens luminaires
- Soft and flood lighting
- Follow and moving-head spotlights
- Color changers

**Typical applications**

- Film, TV and video productions
- Stage lighting (theater, opera, etc.)
- Exhibition lighting
- Lighting for major events
- Professional photography



# A breathtaking performance. Long live the HPL.

Thanks to its incomparable efficiency, our HPL high-performance halogen lamp has made a name for itself on stage and in TV studios. And OSRAM is giving a well-deserved encore with the new long-life versions. The average life of HPL long-life (LL) lamps is now 1,500 hours. Therefore, the maintenance intervals are many times longer than before.



*HPL lamps from OSRAM have become well established as star attractions on large stages such as the Teatro Amazonas Opera House in Manaus, Brazil. Together with the TP22H/CE lampholder, they provide an impressive system solution for stage lighting on a grand scale.*





**Non-stop entertainment with HPL long-life lamps.**

The development of a new filament design has considerably increased the life of the HPL high-performance halogen lamp. The life of the 575W version is almost four times longer than that of the standard version. And that of the 750W version is five times longer. The six filament segments design guarantees that the long-life versions also make optimal use of the light they generate and produce the same useful luminous flux as 1,000W lamps.

The lampholder TP22H/CE ensures that all the HPL lamps achieve their full potential. Thanks to clearly defined pin guides and floating contacts, the lamps can be inserted smoothly, safely and reliably. The TP22H/CE lampholder fits in all generations of the Source Four® family of spotlights, the perfect combination with HPL lamps.

**HPL**

The HPL lamp is perfectly matched to the elliptical spotlights of the Source Four® family from Electronic Theatre Controls Inc. (ETC) and is manufactured under license from ENTERTEC Inc.

- Maximum performance due to ultra-compact filament design
- Solid nickel pins for precise alignment of the lamp in the holder
- Strengthened pinch point for enhanced mechanical stability
- Special metal heat sink for improved heat dissipation and optimized life

**Lampholder**

The S4 “high-temp” version of the TP22H/CE lampholder has a fiber glass sleeve that protects the cable near the housing. The “low-temp” version is used mainly for PAR spotlights.

- Ceramic housing
- Silver-plated nickel contacts
- High-temperature back-up spring ensures strong and constant contact force for long life
- Patented floating contact design for optimized electrical and mechanical properties (several points of contact with the lamp pins)

**Typical luminaire series**

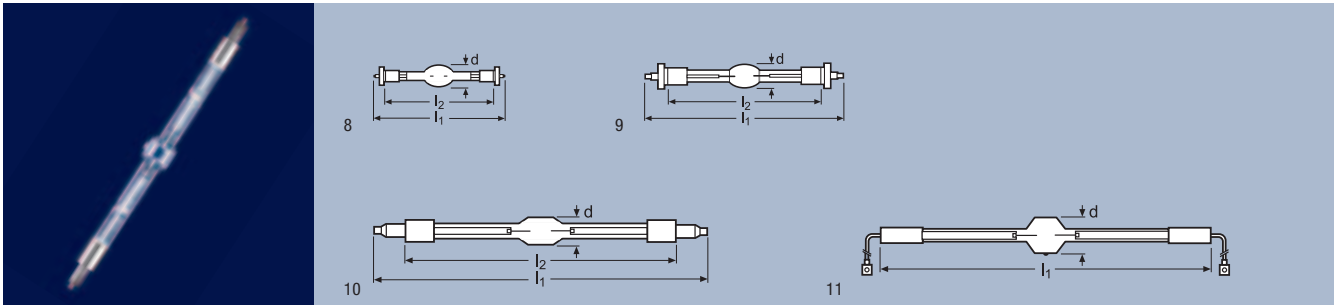
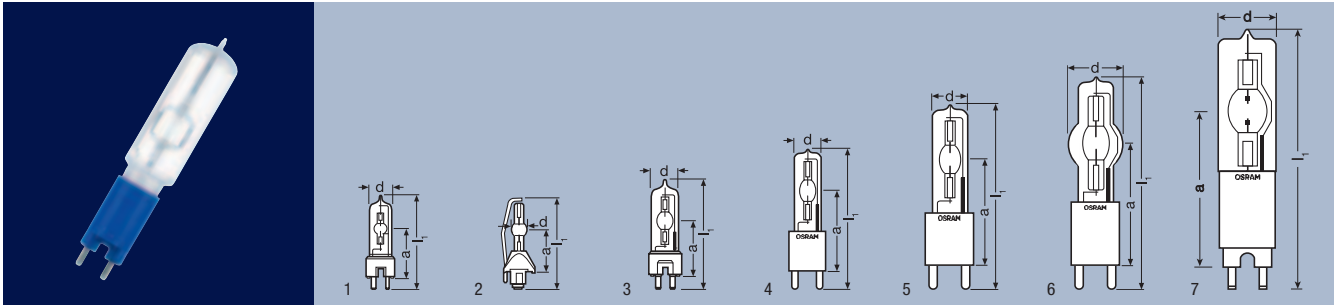
- Source Four®
- Source Four® jr.
- Source Four® Zoom
- Source Four® MultiPAR
- Source Four® PAR EA
- Source Four® PAR MCM
- Source Four® PARnel
- Source Four® CE

**Typical applications**

- Theater, TV, studio
- Entertainment and architecture lighting
- Professional photography

HPL halogen lamps are manufactured under license from ENTERTEC Inc., L.A. Source Four® is a registered trademark of Electronic Theatre Controls Inc. (ETC).

## TECHNICAL DATA



Product reference	Product number	W	V		lm	$l_1$ max. [mm]	$l_2$ max. [mm]	$a$ [mm]	$\varnothing$ [mm]	t [h]	No.
<b>HMI® metal halide lamps</b>											
HMI 200W/SE	4050300307961	200	70	GZY9.5	16000	80	-	39	20	200	1
HMI 250W/SE	4050300239064	270	50	FaX1.5	16200	84	-	35	12	250	2
HMI 400W/SE	4050300388441	400	70	GZZ9.5	33000	110	-	60	23	650	3
HMI 575W/SEL XS	4050300603100	575	95	G22	49000	145	-	70	30	1000	4
HMI 575W/DXS	4008321285102	575	95	SFc10	49000	136	115	-	21	1000	8
HMI 700W/SE XS	4008321191601	700	100	G22	56000	145	-	70	30	750	4
HMI 1200W/DXS	4008321285126	1200	100	SFc15.5	110000	220	180	-	27	1000	9
HMI 1200W/SEL XS	4008321062109	1200	100	G38	110000	200	-	107	42	1000	5
HMI 2500W/DXS	4008321182197	2500	115	SFa21	240000	355	290	-	31.5	500	10
HMI 2500W/S XS	4050300025780	2500	115	SFa21	240000	210	150	-	31.5	500	10
HMI 2500W/SE XS	4050300284293	2500	115	G38	240000	225	-	127	60	500	6
HMI 4000W/DXS	4008321210203	4000	200	SFa21	380000	405	340	-	36	500	10
HMI 4000W/SE XS	4008321244314	4000	200	G38	380000	250	-	142	75	500	6
HMI 6000W/DXS	4008321210210	6000	123	S25.5	570000	450	-	-	54	500	11
HMI 6000W/SE XS	4050300564067	6000	123	GX38	600000	360	-	210	75	500	7
HMI 12000W/DXS	4008321210227	12000	160	S30	1150000	470	-	-	64	500	11
HMI 12000W/SE XS	4050300650418	12000	160	GX38	1150000	450	-	255	100	300	7
HMI 12000W/SE/GX51 XS	4008321098962	12000	160	GX51	1150000	455	-	260	100	300	7
HMI 18000W/DXS	4008321210234	18000	232	S30	1700000	500	-	-	70	300	11
HMI 18000W/SE/GX51 XS	4008321098955	18000	232	GX51	1600000	495	-	260	100	300	7

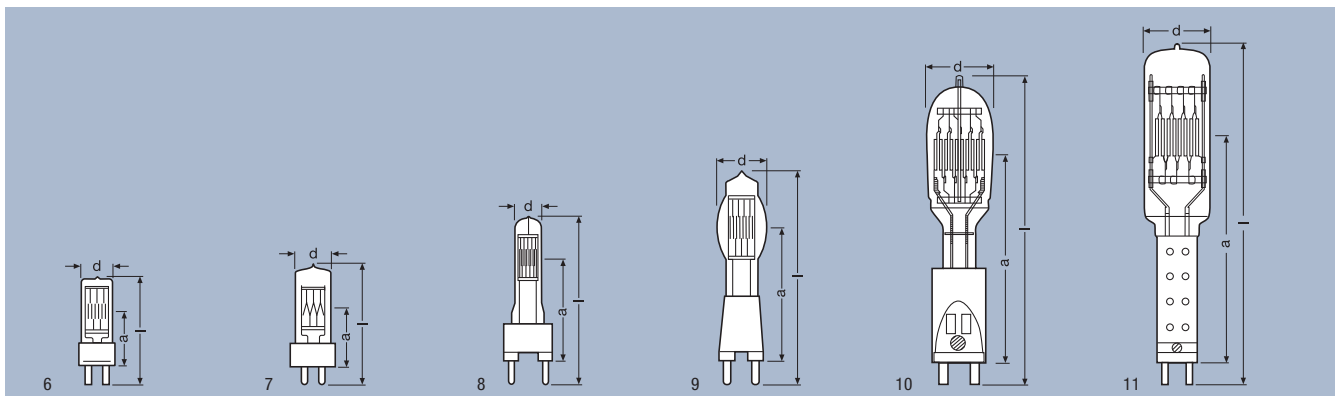
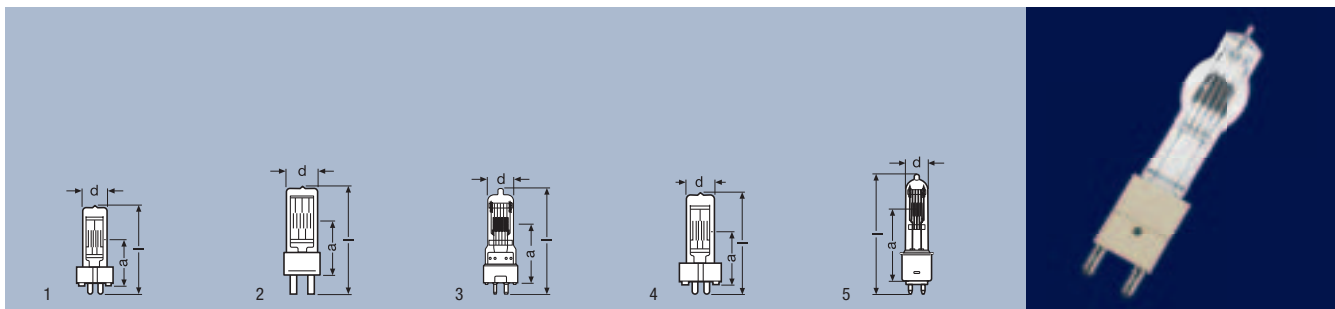
### Safety:

Because of their high luminance, UV radiation and high internal pressure during operation, HMI® lamps may only be operated in enclosed lamp casings specially constructed for the purpose. Appropriate filters must ensure that the UV radiation is reduced to an acceptable level. Mercury is released if the lamp bursts. Special safety precautions must be taken. Information on safety and handling is available on request or can be found in the leaflet included with the lamp or in the operating instructions.

### Literature:

Further information can be found in the following brochures, obtainable on request from OSRAM:

- "Technology and applications/Metal halide lamps"
- "Guidelines for control gear and igniters for metal halide lamps"
- "Rome. 8 pm. Overcast. No problem. HMI® lamps"
- "High Noon" HMI® 12 and 18 kW/SE/GX51



Product reference	Product number	ANSI	LIF	W	V		lm	$l_{max}$ [mm]	a [mm]	$\varnothing$ d [mm]	t [h]	No.
-------------------	----------------	------	-----	---	---	--	----	----------------	--------	----------------------	-------	-----

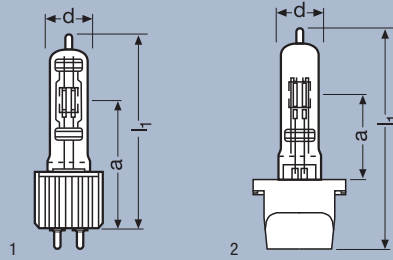
**Line-voltage halogen lamps**

64716 <sup>1)</sup>	4050300506494	GKV		600	230	G9.5	14000	101	60.5	19	250	5
64717 <sup>1)</sup>	4050300296692		CP/89	650	230	GY9.5	16250	90	46.5	23	150	3
64678	4050300609102			800	230	G9.5	20000	105	60.5	19	250	5
64748 XS <sup>1)</sup>	4008321218483			1000	230	GY9.5	25000	95	46.5	23	250	3
64744 <sup>1)</sup>	4050300017723	FWP	T/19	1000	230	GX9.5	20500	110	55	26	750	4
64745 <sup>1)</sup>	4050300213262	FVA	CP/70	1000	230	GX9.5	26000	110	55	26	200	1
64747 <sup>1)</sup>	4050300217604	FKJ	CP/71	1000	230	G22	26000	140	63.5	26	200	2
64752	4050300296616	FWS	T/29	1200	230	GX9.5	28600	125	67	27	400	4
64754	4050300296746		CP/90	1200	230	GX9.5	30000	125	67	27	200	1
64756 <sup>1)</sup>	4050300296722		CP/93	1200	230	G22	30000	140	63.5	26	200	2
93723	4008321201690		CP/110	1200	80	G22	37500	120.7	63.5	26	300	2
64777	4050300367682		CP/92	2000	230	G22	52000	175	90	35	400	6
64787	4050300246154		CP/75	2000	230	G22	52000	160	75	35	400	6
64788 <sup>1)</sup>	4050300213286		CP/72	2000	230	GY16	52000	145	70	40	400	7
64789 <sup>1)</sup>	4050300219103	FKK	CP/73	2000	230	G38	52000	210	127	35	400	8
64796	4050300406428		CP/91	2500	230	G22	65000	175	90	35	400	6
64805 <sup>1)</sup>	4050300212609		CP/85	5000	230	G38	135000	265	165	61	400	9
64815	4050300780696	ECR	CP/83	10000	230	G38	285000	380	254	80	350	10
64818	4050300782713	BCM	CP/99	20000	230	G38	580000	550	354	100	350	11

1) Also available in 240V

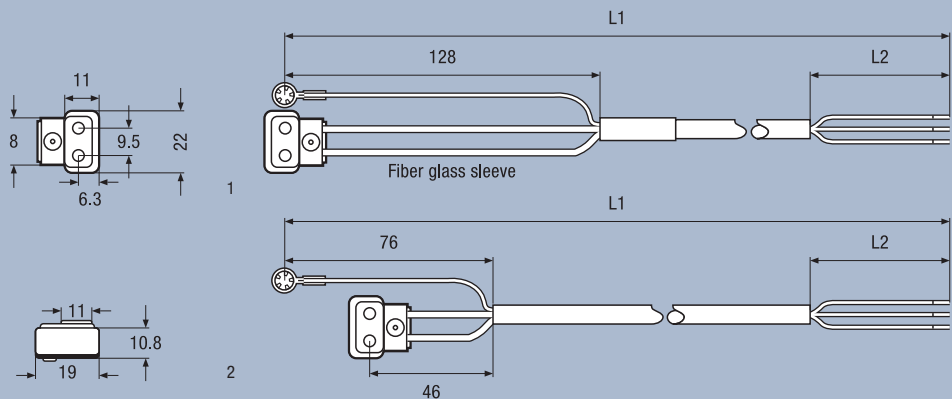


## TECHNICAL DATA



Product reference	Product number	W	V		lm	$l_1$ max. [mm]	a [mm]	$\varnothing$ d [mm]	t [h]	No.
<b>Halogen high-performance lamps HPL, QXL®</b>										
93728 HPL <sup>1)</sup>	4050300461816	575	230	2-pin	14900	98	60.3	19	400	1
93728 LL HPL <sup>1)</sup>	4008321090102	575	230	2-pin	11780	98	60.3	19	1500	1
93729 HPL <sup>1)</sup>	4050300654201	750	230	2-pin	19750	104	60.3	19	300	1
93729 LL HPL <sup>1)</sup>	4008321090324	750	230	2-pin	15600	104	60.3	19	1500	1
93721 QXL	4008321090195	750	77	bayonet <sup>2)</sup>	22950	104	38	18.4	300	2
93721 LL QXL	4008321090218	750	77	bayonet <sup>2)</sup>	18000	104	38	18.4	1500	2

1) Also available in 240 V  
2) Quick eXchange base



Product reference	Product number	Cable type	Cable length L1 (mm)	Cable length L2 (mm)	No.
<b>Lampholders for HPL lamps</b>					
TP22H/CE S4	4008321335241	AWG16PTFE (250 °C)	1653	50.8	1
TP22H/CE PAR	4008321335265	AWG16PTFE (250 °C)	1603	50.8	2

### OSRAM GmbH

#### Head Office

Hellabrunner Str. 1  
81543 Munich  
Phone: +49 (0) 89-62 13-0  
Fax: +49 (0) 89-62 13-20 20  
www.osram.de  
www.osram.com  
catalog.myosram.com/DE  
catalog.myosram.com/EN

#### Display/Optic Division

Nonnendammallee 44  
13625 Berlin  
Phone: +49 (0) 30-33 86-21 74  
Fax: +49 (0) 30-33 86-23 59  
E-Mail: info@osram.com

<b>W</b>	Rated wattage in W	$l_2$ max. [mm]	Max. length $l_2$ in mm
<b>V</b>	Voltage in V	a [mm]	Spacing a in mm
	Base	$\varnothing$ d [mm]	Diameter d in mm
<b>lm</b>	Luminous flux in lumen	t [h]	Average period of use/life
$l_1$ max. [mm]	Max. length $l_1$ in mm	No.	Figure no.
<b>ANSI</b>	ANSI code	LIF	LIF code

#### Safety:

To prevent personal injury or damage to property, halogen lamps may only be operated in suitable luminaires designed with mechanisms (protective shields, grids, etc.) which ensure that no parts/shards can escape in the case of a lamp bursting and that no ultraviolet radiation can be emitted during operation. There must also be a warning sign to indicate that the lamps give off high levels of heat. Detailed information is available on request.

SEE THE WORLD IN A NEW LIGHT

