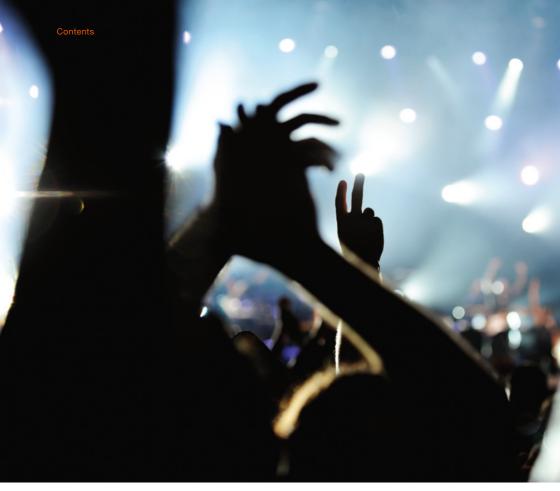


Light is OSRAM

OSRAM







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OSRAM Entertainment	4
Claypaky and ADB	6
New packaging for entertainment lamps	8
Focus products	10

Concert and effect lighting

12 points for OSRAM

Studio, TV and film lighting

Bright lights for the silver screen

Stage and theater lighting

Standing ovations guaranteed



Architectural lighting

Breathing life into buildings - day and night

Further information	92
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Service	102

Transforming performance

In all areas of entertainment lighting, OSRAM offers exciting products and solutions that take both technical and artistic performance to a new level.

We make light work for you

As a technology leader in the lighting industry, we strive to unlock the full potential of light and make it accessible to everyone. In the entertainment sector, the most important characteristic of light is its ability to generate the most diverse emotions. Our innovative technologies exercise this ability to the fullest: They provide high-precision lighting and dazzling effects, infusing audiences around the world with energy and excitement.

Artistic excellence meets technical perfection

OSRAM has changed the way the stage is set. We offer the latest and greatest on the entertainment lighting market, set new industry standards and add the highest level of technical performance to the widest range of applications. As a result, our products bring a gleam to the eyes of artists, lighting designers and, most importantly, the audience.

OSRAM - full solution provider

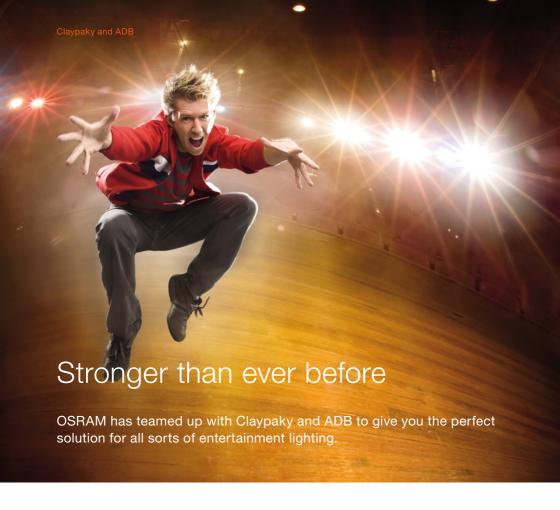
As one of the world's top players in entertainment lighting, OSRAM offers:

- Luminaires for professional lighting sectors (Claypaky/ADB)
- Advanced, custom-made lamps and components for the top luminaire brands in entertainment lighting
- Innovative, future-oriented solutions in the laser and LED areas which can be tailor-made according to specific customer and application needs





Furthermore, we serve our customers with dedication and put strong relationships and customer understanding at the heart of our business. With our deep application expertise across industries and technologies and by anticipating the right innovations, we contribute to our customers' competitive edge. And we have established a legacy of delivering on our promises – reliably, globally, and for over a century.



Whether it's concert, club, TV show, amusement park or theatrical performance – OSRAM, Claypaky and ADB always represent top class together. In 2014, OSRAM acquired Claypaky to increase its expertise in entertainment lighting and advance its technology and innovation strategy. The two companies complement each other perfectly and, time and time again, push each other to new heights. Market-leading technical expertise and construction know-how have entered into a unique symbiosis. In August 2016, OSRAM further expanded its leadership in entertainment lighting by acquiring certain assets from ADB, which specializes in lighting for theaters and TV studios.

The 2016 Eurovision Song Contest is an example of the success enjoyed by OSRAM and Claypaky. With OSRAM as the official lighting partner of the event, OSRAM's lamps and LIGHTIFY® lighting system as well as hundreds of Claypaky's lights set benchmarks at this "holy grail" of lighting designers – and made Eurovision a spectacular visual highlight.





Claypaky

Based in Italy, Claypaky is a worldwide reference brand in the professional lighting industry. Today, about 200 employees work on innovative solutions for the international entertainment industry. The wide range of Claypaky products includes moving heads and moving mirror projectors, color changers, follow spots, projectors for architectural lighting and various lighting effects. Claypaky lights are used in top productions in the theater, television, live events, the fashion world, fairs and exhibitions, and are installed in the best clubs, bars, theme parks, shops, conference rooms and architectural environments. Clavpaky's award-winning spotlights are famous all over the world and trusted by countless renowned artists and companies.

Claypaky understands what is essential for its customers' success. With a wide range of top-class products, which are superior in robustness and light quality, it is the ideal choice for every lighting designer. The reliability of the products reduces the total cost of ownership, thus improving the bottom line for rental companies and distributors.



ADB

Based in St. Quentin, France, ADB is a reference brand in the professional lighting industry with a special focus on theater and TV studio applications. Originally founded in Belgium in 1920, the company offers a comprehensive range of products including luminaires, dimmers and lighting control desks. The company's products are sold worldwide through a network of qualified independent distributors. Applications have included various prestigious theaters such as the National Grand Theater in Beijing, the Opera Garnier in Paris and the Teatro alla Scala in Milan.



Clear and modern packaging and color concept

New distinct packaging and label colors: If you know the right color, finding the right product is as easy as it gets.

We have developed a simple and consistent packaging concept with a stylish design for the product groups Lok-it!®, SIRIUS HRI® and HMI®. This concept makes product identification during purchase and use much easier for you. While the packaging colors help you to identify the product group, the label colors are used to distinguish between different features and applications. The colors for special features will also be used for any future products with the same feature.

Lok-it!® Power Series



The label colors of the Lok-it!® Power Series lamps can also be found on the bottom of the base.

SIRIUS HRI®





HMI®







HMI® DIGITAL

Robust, flicker-free lamps deliver a steady performance on set or on stage.







Advanced filming technology necessitates advanced set lighting

Now more than ever before, technology allows for an immersive movie experience, with intense visual effects and crisp sound. And technology has not only changed the way we experience movies, but the way we film them. Most productions rely heavily on digital film, a medium which brings its own set of benefits and challenges—especially for lighting.

To meet the needs of such film technology, OSRAM modernized its professional, high-performance HMI® lamps that have been trusted on film sets, stages and television studios for decades. The new line of HMI® DIGITAL lamps provides the benefits professionals have come to expect from the HMI® name, plus flicker-free lighting when operated in modes of 1,000 Hz and higher with high-speed electronic ballasts.

Benefits and features at a glance

- Suitable for both analog and digital film production
- Color temperature: 6,000 K (daylight)
- High color rendering index of > 90, for true-to-life colors
- Extremely bright light of up to 100 lm/W
- Up to 99.9 % less UV emissions (from models equipped with UV stop)
- Dimmable
- Hot restart capability
- Improved stability and design
- Robust stems, resulting in less breakage during transport
- Round moly-foil construction that evenly distributes heat and current for lamp longevity (6,000–18,000 W)

For more information, see:

Studio, TV and film lighting, page 44

Stage and theater lighting, page 66



The next generation of HMI® lamps for film sets around the world: HMI® STUDIO

Over the last four decades, we've developed new products that help your performances shine a little brighter, all while making your job of modeling light for sets, stages and studios a little easier. The HMI® lamp family continues to be an integral part of film sets around the world. Thanks to their continuous improvement, HMI® lamps have made film history again and again.

Now, OSRAM proudly introduces the HMI® STUDIO metal halide lamp series with a tungsten 3,200 K color temperature for your film sets, theater stages and television studios. An evolution in metal halide lamps, the HMI® STUDIO series will simplify your stage by delivering best-in-class light while eliminating the need for separate tungsten halogen fixtures and their lamps.

Product features at a glance

Along with their inherent OSRAM quality and durability, HMI® STUDIO lamps offer:

- 3,200 K color temperature in luminaires
- A plug-and-play option suitable for daylight fixtures
- Twice as bright as tungsten halogen lamps with similar wattages
- A lifetime identical to traditional OSRAM HMI® lamps
- High CRI of more than 90
- Patented doped UV stop (UVS) quartz outer jacket eliminates 99.9 % of UVB and UVC emissions

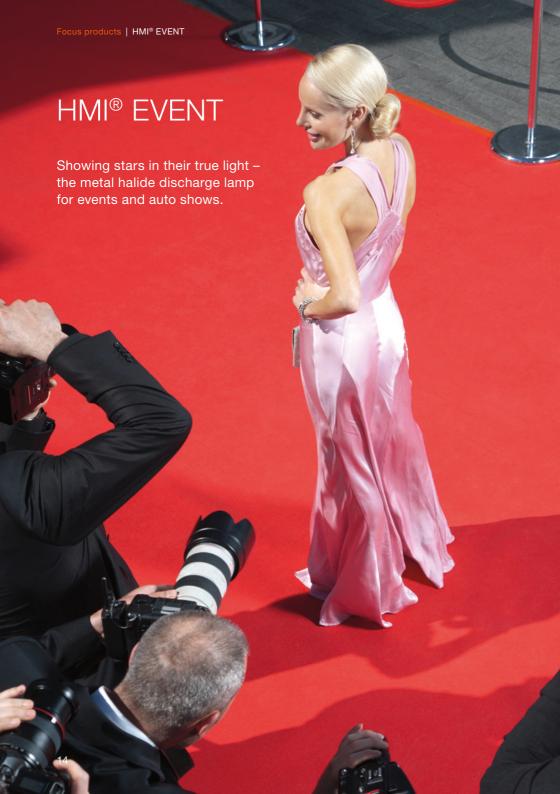


Light for the modern stage

For more information, see: Studio, TV and film lighting, page 46 Stage and theater lighting, page 68



Light for dramatic scenes





Stars and cars in the limelight

HMI® EVENT is a metal halide discharge lamp that has been designed specifically for large-scale events where branding, presentation and true-to-life color are of the utmost importance.

The high-output daylight source is ideal for putting fashion models and celebrities in the limelight. Moreover, it also delivers a stellar performance at auto shows, accurately reflecting the curves, color and essence of the cars and maintaining an even distribution and uniform color temperature across the cars' surface for up to fourteen hours.

HMI® EVENT light data tool

Simply use the unique serial code to find out about the characteristics of your lamp.



www.osram.com/ hmilightdata

Benefits

- Improved heat resistance for head-down position of the fixture
- Tighter range of color temperature for a stable CCT with reduced color and brightness shifts
- UV stop (UVS) UV emissions reduced by up to 99.9 %

Applications

- Events, e.g. fashion shows and press events
- Exhibitions of autos as well as motorcycles, boats and industrial equipment

For more information, see:

Concert and effect lighting, page 31

Lok-it!® Power Series



The right lamp for every job – the Lok-it!® Power Series gives you the most powerful, performance-oriented range of lamps.

With its re-launched Lok-it!® Power Series, OSRAM introduces the next generation of versatile discharge lamps for entertainment applications. From illuminating theater performances to creating dazzling light shows, the Lok-it!® Power Series has the ideal lamp for every stage, concert and club. All Lok-it!® Power Series lamps offer a high CRI of 90 and supply flexibility for entertainment applications. The lamps' natural tone of light, compact size, plugand-play technology and uniform light emission render them ideal for use in a broad range of show venues. In addition to the known Lok-it!® 1000/PS and Lok-it!® 1700/PS lamps, OSRAM offers new varieties: Brilliant and Blue.

The OSRAM Lok-it!® Power Series offers:

- Natural tone of light with CRI of 90
- Compact size and short arc gap for use in smaller and brighter fixtures
- Higher luminous efficiency than standard HID lamps
- Optimized filling for uniform light emission and reduced output in the green wavelengths common to HID lamps
- "Plug-and-play" base (PGJX28 or PGJX36)
- Ceramic bases resistant to high voltages of up to 35 kV







Lok-it!® Power Series (standard lamps)

Best for concert lighting, Lok-it!® 1000/PS and Lok-it!® 1700/PS provide entertaining effects and perform as well as the talent on your stage.

Main advantage:

Stable performance and reliability

Main application area:

Concert lighting

Lok-it!® Power Series Brilliant

Consisting of Lok-it!® 1000/PS Brilliant and Lok-it!® 1400/PS Brilliant, these high-performance lamps are perfect for theaters. With Lok-it!® Power Series Brilliant, the audience experiences true-to-life colors thanks to a CRI of 95

Main advantage:

Life-like colors and natural skin tones

Main application area:

Theater lighting

Lok-it!® Power Series Blue

With its high color temperature of 7,500 K, Lok-it![®] 1000/PS Blue shines when you require crisp white light.

Main advantage:

Bright whites that cut through the other colors on stage

Main application area:

Concert lighting

For more information, see:

Concert and effect lighting, page 24 Studio, TV and film lighting, page 50 Stage and theater lighting, page 72

Lamp replacement tool



www.osram.com/ lamp-replacement-entertainment

SIRIUS HRI®

Compact reflector lamps with high light output for spectacular light effects – developed for small moving heads.





Spectacular stage shows come to life through inspiring light presentations. In order to create impressive light effects, the lightweight and compact SIRIUS HRI® come with high luminance. The reflector lamps are perfectly suited for small and lightweight moving heads. They make a lasting impression with their long lifetime, a stable light output and fast lamp replacement.

Lamp replacement tool



www.osram.com/ lamp-replacement-entertainment



Your benefits

- Lightweight and compact reflector lamps with ECG
- Perfectly suited for small and lightweight moving heads
- Optimized burner design allows any burning position
- High luminance through very short arc and high pressure
- Bright light for brilliant light effects
- Long lifetime
- Easy lamp replacement
- Stable light output over the entire lifetime

For more information, see: Concert and effect lighting, page 25 Studio, TV and film lighting, page 51

SplitStar® S32 module platform solution



The S32 module is based on innovative multi-chip LED technology – high luminance and luminous flux for the use in entertainment and professional lighting applications.



The SplitStar® S32 CW – luminance is the key

The pattern of 16 closely arranged LED chips enables a particularly high luminance of up to 140 cd/mm² ¹⁾. This far exceeds the average luminance of CoB (chip-on-board) modules of 20 cd/mm². The multi-chip cold white LED module also scores with a high luminous flux of up to 20,000 lm ¹⁾ and an integrated temperature-controlled monitoring (NTC). Based on the flexible platform, customized versions in color and layout are possible.

The SplitStar® S32 RGBW – with all the familiar features of the S32

The S32 RGBW contains four 2 mm² high-current chips per color. Thanks to the low thermal resistance of 0.05 K/W², each chip can be operated with up to 5 A (red 4 A), which generates a large amount of light from a small surface. The integrated temperature control via NTC allows continuous operation. Typical target applications of the S32 RGBW are stage spotlights of any size, though the module is equally suited for use in mood lights, as effect lighting for accents or as architectural lighting. By mixing different S32 RGBW values, you can create a wide range of colors, including pastel shades.

Features and benefits

- Up to 20,000 Im (CW)¹⁾
 Cutting-edge performance enables new generation of LED fixtures with superior light output
- Up to 140 cd/mm² (CW) ¹⁾
 Very high luminance, perfect for beam and spot lights

SplitStar® S32 RGBA (full white), the latest member of the SplitStar® family

The RGBA full white version features an adjustable white point and a high CRI along the Planckian locus. Four independent control channels with red, green, amber and blue provide a controllable color temperature mix between 2,700 and 7,000 K. The S32 RGBA is the perfect choice for any application requiring adjustable color temperatures in combination with a continuous high CRI and the well-known high luminance and luminous flux of the SplitStar® family.

SplitStar® solution partners

Dedicated optical solution based on light guide available at Auer Lighting.

Dedicated electronic driver available at ITG – Illuminance Technologies Group.

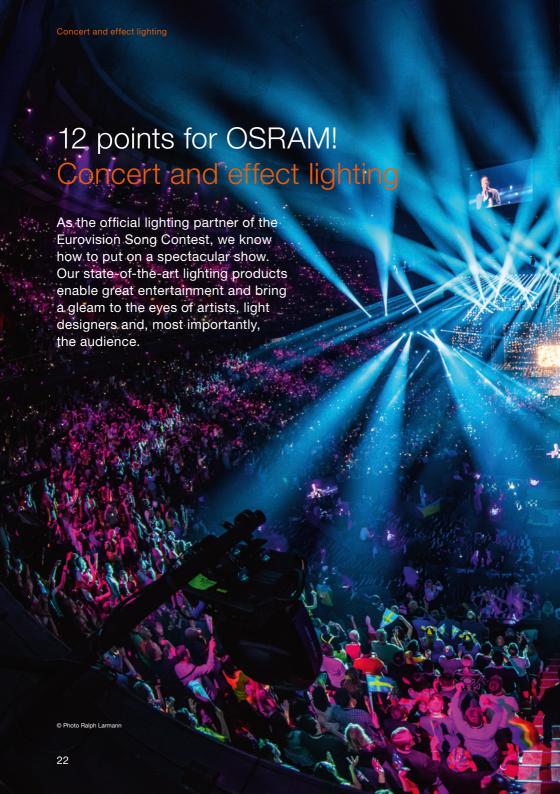
Dedicated LED holder for electrical connection available at Bender & Wirth.

For more information, see:

| Concert and effect lighting, page 40
| Studio, TV and film lighting, page 62
| Stage and theater lighting, page 85
| Architectural lighting, page 90

- Scalable design
 - Customized versions possible
- LED chips are wired in series circuits
 Chips can be driven with standard voltage and current levels (5 A max., SELV)
- Electrically insulated
 LED module can be mounted directly onto heat sinks

¹⁾ Pulse mode operation 2) NTC to backplane

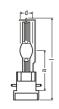




Lok-it!®













Product name	Product number		W	V	Α	t [h]	lm	K
Lok-it!®								
Lok-it! HTI 400 W/60/P28	4008321	605481	400	67	6	750	30000	6000
Lok-it! HTI 700 W/60/P28	4052899	179790	700	60	11.6	750	50000	6000
Lok-it! HTI 700 W/75/P28	4008321	510549	700	100	11	750	50000	7500
Lok-it! HTI 700 W/75/P50	4008321	485205	700	100	10	750	50000	7500
Lok-it! HTI 1500 W/60/P50	4008321	553416	1500	100	15	750	135000	6000
Lok-it! HTI 1500 W/60/P50 M3W	4008321	818997	1500	100	15	750	130000	6000
Lok-it!® Power Series								
Lok-it! 1000/PS	4052899	965157	1000	85	12	950	85000	6000
Lok-it! 1000/PS Blue	4052899	965171	1000	71	14	750	70000	7500
Lok-it! 1000/PS Brilliant	4052899	965164	1000	85	12	750	82000	5900
Lok-it! 1400/PS Brilliant	4052899	965195	1400	90	15.5	750	120000	6000
Lok-it! 1700/PS	4052899	965201	1700	85	20	750	135000	6000
Product name	Ra	d [mm]	[mm]	LCL a [mm]	1		a	No.
	Ra	d [mm]	[mm]		+		4	No.
name	Ra > 85	d [mm]	103		3.4	PGJX28	1	No. 1
name Lok-it!®				a [mm]	3.4			No.
name Lok-it!® Lok-it! HTI 400 W/60/P28	> 85	17	103	ā [mm] 56		PGJX28 PGJX28 PGJX28	1	No. 1
name Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28	> 85 > 85	17	103	56 56	4.1	PGJX28 PGJX28	1 1	1 1
name Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50	> 85 > 85 85	17 18 18	103 112 128	56 56 56	4.1 4	PGJX28 PGJX28 PGJX28	1 1 1	1 1 2 1 2
name Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28	> 85 > 85 85 > 85	17 18 18 20	103 112 128 125	56 56 65 65	4.1	PGJX28 PGJX28 PGJX28 PGJX28	1 1 1 1 1	1 1 2 1
name Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 65 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1 1 1 1	1 1 2 1 2
Name Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 65 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1 1 1 1	1 1 2 1 2
name Lok-itt® Lok-itt HTI 400 W/60/P28 Lok-itt HTI 700 W/60/P28 Lok-itt HTI 700 W/75/P50 Lok-itt HTI 700 W/75/P50 Lok-itt HTI 700 W/60/P50 Lok-itt HTI 1500 W/60/P50 M3W Lok-itt® Power Series	> 85 > 85 85 > 85 > 85 > 85 > 85	17 18 18 20 26 26	103 112 128 125 128 128	56 56 65 65 65 65	4.1 4 4 5.8 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50 PGJX28	1 1 1 1 1 1 1 1	No. 1
name Lok-itt® Lok-itt HTI 400 W/60/P28 Lok-itt HTI 700 W/60/P28 Lok-itt HTI 700 W/75/P50 Lok-itt HTI 700 W/75/P28 Lok-itt HTI 1500 W/60/P50 Lok-itt HTI 1500 W/60/P50 M3W Lok-itt® Power Series Lok-itt 1000/PS	> 85 > 85 85 > 85 > 85 > 85 > 85 > 85	17 18 18 20 26 26	103 112 128 125 128 128	56 56 65 65 65 65	4.1 4 4 5.8 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50 PGJX28	1 1 1 1 1 1 1 1 1 1	No. 1
name Lok-itt® Lok-itt HTI 400 W/60/P28 Lok-itt HTI 700 W/60/P28 Lok-itt HTI 700 W/75/P50 Lok-itt HTI 700 W/75/P28 Lok-itt HTI 1500 W/60/P50 Lok-itt HTI 1500 W/60/P50 M3W Lok-ittl® Power Series Lok-ittl 1000/PS Lok-ittl 1000/PS Lok-ittl 1000/PS Blue	> 85 > 85 85 > 85 > 85 > 85 > 85 > 85 >	17 18 18 20 26 26 26	103 112 128 125 128 128 128	56 56 56 65 65 65 65 65	4.1 4 4 5.8 5.8 5.5 5.5	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50 PGJX28	1 1 1 1 1 1 1	1 1 2 1 2 2 2 3 3 3 3

Product features

- eXtreme Seal technology for discharge lamps

Product benefits

- Rapid relamping with bayonet lock

See safety advice no. 1 on page 92

More information about the focus product

See Lok-it!® Power Series on pages 16/17

SIRIUS HRI®



















Time of the second

Product name	Produc number		W	Α	t [h]	lm	K	
SIRIUS HRI 100W	405289	9329119	100	1.8	6000	3680	9000	
SIRIUS HRI 132W	405289	9028708	132	1.9	6000	5150	9200	
SIRIUS HRI 140W RO	405289	9258969	140	1.9	6000	5400	9200	
SIRIUS HRI 190W +	400832	1866592	190	2.7	3000	8100	8200	
SIRIUS HRI 230W	400832	1810311	230	3.3	2500	9500	8000	
SIRIUS HRI 280W	400832	1810342	280	4	2000	11500	7800	
SIRIUS HRI 280W RO	405289	9110397	280	4	2000	11500	7800	
SIRIUS HRI 330W	400832	1810373	330	5	1500	18000	7400	
SIRIUS HRI 330W XL	405289	9195431	330	5	1500	16500	7250	
SIRIUS HRI 330W X8	405289	9140295	330	4.4	1500	18000	8000	
SIRIUS HRI 440W	405289	9259096	440	5.3	1500	22000	7000	
SIRIUS HRI 440W S	405289	9329140	440	5.3	1500	22800	7000	
Product	П	b						
name	Ra	[mm]	[mm]				No.	
SIRIUS HRI 100W	60		[mm] 53	Any	1.0	1	No.	
		[mm]		Any Any			1 2	
SIRIUS HRI 100W	60	45	53		1.0	1	No. 1	
SIRIUS HRI 100W SIRIUS HRI 132W	60 60	45 46	53	Any	1.0	1	No. 1 2	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO	60 60 60	45 46 46	53 44 44	Any Any	1.0 1.0 1.0	1 1 1	No. 1 2 2	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W +	60 60 60 73	45 46 46 51	53 44 44 54.5	Any Any Any	1.0 1.0 1.0 0.8	1 1 1 1	No. 1 2 2 2 3	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W	60 60 60 73 75	45 46 46 51 51	53 44 44 54.5 54.5	Any Any Any Any	1.0 1.0 1.0 0.8 1.0	1 1 1 1 1	No. 1 2 2 2 3 3 3	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W	60 60 60 73 75 78	45 46 46 51 51 51	53 44 44 54.5 54.5 54.5	Any Any Any Any Any	1.0 1.0 1.0 0.8 1.0 0.9	1 1 1 1 1 1	No. 1 2 2 2 3 3 3 3 3 3	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W SIRIUS HRI 280W RO	60 60 60 73 75 78	45 46 46 51 51 51 51	53 44 44 54.5 54.5 54.5 54.5	Any Any Any Any Any Any	1.0 1.0 1.0 0.8 1.0 0.9	1 1 1 1 1 1 1	No. 1 2 2 3 3 3 3 3 3 3 3	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W SIRIUS HRI 280W RO SIRIUS HRI 330W	60 60 60 73 75 78 78 86	45 46 46 51 51 51 51 51 56	53 44 44 54.5 54.5 54.5 54.5 63	Any Any Any Any Any Any Any Any Any	1.0 1.0 1.0 0.8 1.0 0.9 0.9	1 1 1 1 1 1 1 1	No. 1 2 2 2 3 3 3 3 4 4	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W SIRIUS HRI 280W RO SIRIUS HRI 330W SIRIUS HRI 330W SIRIUS HRI 330W SIRIUS HRI 330W XL	60 60 60 73 75 78 78 86 71	45 46 46 51 51 51 51 56 56	53 44 44 54.5 54.5 54.5 54.5 63 63	Any	1.0 1.0 1.0 0.8 1.0 0.9 0.9	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	No. 1 2 2 3 3 3 3 4 5	

Product features

- High luminance through very short arc and high pressure
- Bright light for brilliant light effects
- Long lifetime

Product benefits

- Lightweight and compact reflector lamps with ECG
- Perfectly suited for small and lightweight moving heads
- Optimized burner design allows any burning position
- Easy lamp replacement
- Stable light output over the entire lifetime

See safety advice no. 1 on page 92

More information about the focus product See SIRIUS HRI® on pages 18/19

SharXS® HTI®









Product name	Product number		W	٧	kV START	Α	t[h]	lm	cd/ /cm²
SharXS HTI 400 W/D3/75 1)	400832	1285157	400	50	3.0/25 5)	8	750	26000	55000
SharXS HTI 700 W/D4/60 2)	400832	1285218	700	70	3.0/25 5)	10	750	59000	60000
SharXS HTI 700 W/D4/75 1)	400832	1285232	700	70	3.0/25 5)	10	750	59000	60000
SharXS HTI 1200 W/D7/60 3)	400832	1285256	1200	95	5.0/35	12.7	750	110000	41000
SharXS HTI 1200 W/D7/75 2)	400832	1285270	1200	95	5.0/35	12.7	750	110000	41000
SharXS HTI 1500 W/D7/60 4)	400832	1285294	1500	110	5.0/35	14	750	145000	42000
SharXS HTI 1500 W/D7/75	400832	1510525	1500	110	5.0/35	14	750	145000	42000
Product name	K	Ra	d [mm]	[mm]	LCL a [mm]			7	No.
SharXS HTI 400 W/D3/75 1)	7500	80	18	135	57.5	Any	SFc10-4	1	1
SharXS HTI 700 W/D4/60 2)	6000	> 80	18	135	57.5	Any	SFc10-4	1	1
SharXS HTI 700 W/D4/75 1)	7500	> 80	21	135	57.5	Any	SFc10-4	1	1
SharXS HTI 1200 W/D7/60 3)	6000	90	21	136	57.5	Any	SFc10-4	1	1
SharXS HTI 1200 W/D7/75 2)	7500	80	21	135	57.5	Any	SFc10-4	1	1
SharXS HTI 1500 W/D7/60 4)	6000	90	25	135	57.5	Any	SFc10-4	1	1
SharXS HTI 1500 W/D7/75	7500	90	25	136	57.5	Anv	SFc10-4	1	1

Product features

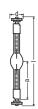
- Always ready for a hot restart
- Allows for a more compact luminaire design
- Pre-focus base for accurate lamp installation
- Double-ended lamp allows for key-lock socket feature

¹⁾ Also available as an OEM package with 30 units without knurled nuts
2) XS = eXtreme Seal (maximum permissible foil temperature 450 °C)
3) Also available as an OEM package with 30 units without knurled nuts / XS = eXtreme Seal (maximum permissible foil temperature 450 °C)
4) May be operated from 1,200...1,500 W
5) Codd/hot

Maxi SharXS® HTI®









Product name	Product number		W	V	Α	t[h]	lm	К
Maxi SharXS HTI 2000 W/D10/60	400832133	34947	2000	105	0	750	200000	6000
Product name	Ra	d [mm]	I [mm]	LCL a [mm]			4	No.
Maxi SharXS HTI 2000 W/D10/60	> 90	28	220	90	Any	SFc15.5	1	1

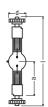
Product features

- See safety advice no. 1 on page 92
- Short 10 mm arc for greater efficiency
- eXtreme Seal (XS) technology for improved thermal loading
- Modular design with overall length of 220 mm

Baby SharXS® HTI®









Product name	Product number	W	V	kV START	Α	t[h]	lm	K
Baby SharXS HTI 250 W/D5/80	4008321129161	250	95	2.0/201)	3.1	3000	19000	8000
Baby SharXS HTI 300 W/D5/57	4008321129185	300	80	4.5/20	4.3	3000	20000	5700
Baby SharXS HTI 300 W/D5/65	4008321129208	300	100	4.5/20	4.3	750	22000	6500
Baby SharXS HTI 575 W/D5/56	4008321129345	575	95	4.5/20	7.0	500	43000	5600
Product name	Ra	d [mm]	[mm]	LCL a [mm]			a	No.
Baby SharXS HTI 250 W/D5/80	> 85	16	93	35	Any	SFc10-4	1	1
Baby SharXS HTI 300 W/D5/57	80	16	93	35	Any	SFc10-4	1	1
Baby SharXS HTI 300 W/D5/65	85	16	93	35	Any	SFc10-4	1	1
Baby SharXS HTI 575 W/D5/56	85	16	93	35	Any	SFc11-4	1	1

Product features

- eXtreme Seal (XS): maximum permissible temperature 450 °C
- Color temperature: approx. 6,000 K (daylight)
- Hot restart capability
- AC current
- Average life: 500...3,000 h (depending on type)
- Good color rendering index: R_a > 80 to > 85

Product benefits

- High average luminance (30...50 kcd/cm²)

HTI®, single-ended

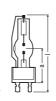


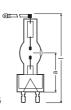














Product name	Product number	W	V	Α	t [h]	lm	cd/cm²
HTI 150 W 1)	4050300301402	150	100	1.6	750	10000	5000
HTI 152 W	4050300461519	152	95	1.7	2000	10000	4200
HTI 705 W/SE XS 2)	4050300618074	700	70	10	500	59000	30000
HTI 1200 W/SE XS 2)	4050300371153	1200	100	12.7	750	105000	26000
HTI 2500 W/SE XS	4050300371146	2500	115	23.8	600	240000	30000
Product name	K	[mm]	LCL a [mm]			4	No.
	K	1 [mm]	LCL a [mm]	Any	GY9.5	12	
name				Any Any			
name HTI 150 W ¹⁾	6900	46	30		GY9.5	12	No. 1
HTI 150 W ¹⁾	6900 5000	46 48	30	Any	GY9.5 GY9.5	12 12	1 2

Product benefits

- High luminance

- High luminous efficacy and efficiency

¹⁾ Horizontal arc
2) SE = single-ended / XS = eXtreme Seal (maximum permissible foil temperature 450 °C)
3) Secal GIVZ2 base; the significant voltage may be applied only to the thin pin / XS = eXtreme Seal (maximum permissible foil temperature 450 °C) / Important: The contact pins of the base are short-circulted; the electrode farthest from the base is connected via cable
4) Current stap underneath
5) Special GIVZ2 base; the significant voltage may be applied only to the thin pin
5) Special GIVZ2 base; the significant voltage may be applied only to the thin pin
6) Important: The contact pins of the base are short-circulted, the electrode farthest from the base is connected via cable

HTI®, double-ended









Product name	Product number	W	V	Α	t[h]	lm	K
HTI 4000 W/DE	4050300519845	4000	115	40	500	360000	6300
Product name	d [mm]	[mm]	LCL a [mm]			4	No.
HTI 4000 W/DE	40	270	140	p30	S25.5	1	1

Product benefits

- High luminance
- High luminous efficacy and efficiency

HMI® EVENT











Product name	Product number			W	V	Α	t [h]	lm
HMI 575W EVENT	40528993	01726		575	95	7	1000	49000
HMI 1200W EVENT	4052899301740			1200	100	13.8	1000	110000
Product name	K	d [mm]	[mm]	LCL a [mm]			3	Q No.
HMI 575W EVENT	6000	30	145	145	Any	G22	10	1
HMI 1200W EVENT	6000	42	200	200	Any	G38	1	2

Product features

- Optimized filling
- Optimized photometric properties

Product benefits

- Extremely uniform light reduced color or brightness shifts
- Consistent daylight color temperature over the lifetime of the lamp
- High light output
- Excellent color rendering index of R_a > 90, stable over the lifetime of the lamp
- Minimal light scattering

Areas of application

 Exhibitions of autos, boats, industrial equipment and motorcycles

See safety advice no. 4 on page 92



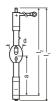
Looking for a solution for moving heads?

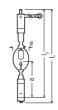
See Lok-it!® on page 24

More information about the focus product

See HMI® EVENT on pages 14/15

Xstage[®]











Product name	Product number		W	V	Α	- A	t[h]	lm
Xstage 2000 W OFR	4008321	288820	2000	23	90	70100	1000	80000
Xstage 3000 W OFR	4008321	288837	3000	30	100	70110	1000	140000
Xstage 4000 W OFR	4008321	288844	4000	30	130	80135	1000	150000
Xstage 7000 W OFR	4008321	288851	7000	40	160	110165	1000	330000
Product name	d [mm]	[mm]	[mm]	LCL a [mm]	+		4	No.
Xstage 2000 W OFR	47	300	262	120	SFaX27-9.5	SFc28-27	1	1
Xstage 3000 W OFR	55	300	262	120	SFaX27-9.5	SFc28-27	1	1
Xstage 4000 W OFR	60	315	277	120	SFaX27-9.5	SFc28-27	1	2
Xstage 7000 W OFR	70	400	362	162.5	SFaX27-9.5	SFc28-27	1	2

Product features

- Color temperature: approx. 6,000 K (daylight)
- Dimmable
- Hot restart capability

Product benefits

- Higher luminance thanks to the shorter arc
- Optimized base for better stability
- Optimized compact design

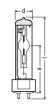
Areas of application

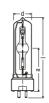
Xenon short-arc lamps for event and architectural lighting

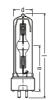
4ArXS HSD®













Product name	Product number	W	V	Α	t [h]	Im	K
4ArXS HSD 150 W/70 1)	4008321625847	150	97	1.8	3000 2)	12000	7000
4ArXS HSD 250 W/60	4008321625762	250	90	3.3	2000	17000	6000
4ArXS HSD 250 W/80	4008321625786	250	95	3.2	3000	17000	8000
4ArXS HSD 575 W/72	4008321625809	575	88	7.4	3000	45000	7200
Product name	d [mm]	[mm]	LCL a [mm]			4	Q No.
4ArXS HSD 150 W/70 1)	20	105	56	hs30	G12	10	1
4ArXS HSD 250 W/60	23	108	55	hs30	GY9.5	10	2
4ArXS HSD 250 W/80	23	108	55	hs30	GY9.5	10	2
4ArXS HSD 575 W/72	30	135	65	hs30	GX9.5	10	3

¹⁾ Outer bulb with UV filter 2) Failure rate 2 % the first 3,000 h; this statement must be restricted only to attributable lamp faults

Product benefits

- Especially long lifespan

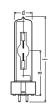
Areas of application

- Entertainment
- Architectural lighting

HSR®









Product name	Product number	W	٧	Α	t[h]	lm	cd/cm²
HSR 400/60	4008321631503	400	67	6.9	1000	33000	20000
HSR 575/60	4008321625885	575	95	6.1	1000	49000	10000
HSR 575/72	4008321662583	575	95	6.1	1000	49000	10000
Product name	K Ø	[mm]	LCL a [mm]			4	No.
HSR 400/60	6000 23	110	62	hs30	GX9.5	10	1
HSR 575/60	6000 30	125	65	hs30	GX9.5	10	1
HSR 575/72	7200 30	125	65	hs30	GX9 5	10	1

Product features

- Single-ended lamps similar to HTI® lamps

Product benefits

- Outer bulb for ease of handling

Areas of application

- Entertainment
- Architectural lighting

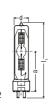
See safety advices no. 1 and 2 on page 92

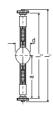
EMH® (Classic Line)

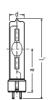














Product name	Product number	W	V	Α	t[h]	K	Ra	d [mm]
EMH 150W/SE/70	4008321345004	150	90	1.8	500	7000	> 70	13
EMH 250W/SE/80	4008321345028	250	94	3.3	2000	8000	> 60	23
EMH 575W/DE/60	4008321345042	575	95	7	750	6000	> 75	24
EMH 575W/DE/75	4008321345066	575	95	7	750	7500	> 60	24
EMH 575W/SE/75	4008321345080	575	95	7	750	7500	> 70	28
EMH 1200W/DE/60	4008321345103	1200	100	13.8	750	6000	> 70	27
Product name	LCL a [mm]	[mm]	[mm]			Lamp Reference	4	No.
EMH 150W/SE/70	30	46	-	Any 1)	GY9.5	HTI 150	10	1
EMH 250W/SE/80	55	108	-	Any	GY9.5	HSD 250 W/80	10	2
EMH 575W/DE/60	57.5	135	115	Any	SFc10-4	HMI 575 W/DXS	10	3
EMH 575W/DE/75	57.5	135	115	Any	SFc10-4		10	3
EMH 575W/SE/75	65	125	-	Any	GX9.5	HSR 575 W/72	10	4
EMH 1200W/DE/60	90	220	180	Anv	SFc15.5	HMI 1200 W/DXS	10	3

1) Luminous arc horizontal

Product benefits

- Effective high-quality light at an attractive price
- Economical versions of the most popular metal halide lamps
- Excellent price/performance ratio
- Available in different wattages and color temperatures
- Available as single-ended and double-ended versions

Areas of application

- Clubs
- Shops
- Small stages

Lok-it!®







Product name	Product number	W	V	t[h]	lm	K	d [mm]
Lok-it! 1200W 80V/32/P50	4008321382795	1200	80	250	37500	3200	25
Lok-it! 1200W 240V/32/P50	4052899245419	1200	240	300	29000	3200	25
Product name	[mm]	LCL a [mm]	-b- 1 -b- 1 h			3	No.
Lok-it! 1200W 80V/32/P50	129.5	84	14.7*14.5	Any	PGJX 50	12	1
Lok-it! 1200W 240V/32/P50	140	84	14.7*14.5	Any	PGJX 50	12	1



Looking for a solution for smaller moving heads?

See SIRIUS HRI® on page 25

Halogen lamps, medium/high voltage, single-ended





Product



Product



ANSI



LIF



lm

K

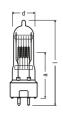
t [h]

name	number		ANSI	LIF	W	V	t [h]	lm	K
64502	4052899	080751			150	230	50	4000	3200
64502	4052899	080775			150	240	50	4000	3200
64502C	4052899	363250			150	230	50	4000	3200
64502C	4052899	363236			150	240	50	4000	3200
64504	4052899	101654		A1/249	150	230	25	5150	3200
64504	4052899	101678		A1/249	150	240	25	4000	3200
64505 ¹⁾	4008321	746078			200	230	25	5100	3200
64505 ¹⁾	4008321	746092			200	240	25	5150	3200
645121)	4008321	746115			300	120	15	9300	3350
64514 ¹⁾	4008321	746139		CP/96	300	120	75	8100	3200
64515 ¹⁾	4008321	746153			300	230	15	9600	3300
64515 ¹⁾	4008321	746177			300	240	15	8900	3350
64516 ¹⁾	4008321	746191		CP/97	300	230	75	7400	3150
64516 ¹⁾	4008321	746214		CP/97	300	240	75	7300	3150
64540	4052899	158221	BVM		650	230	15	20000	3400
64540	4052899	158245	BVM		650	240	15	20000	3400
64575	4008321	098856	EGY		1000	230	15	33000	3400
64575	4008321	098450	EGY		1000	240	15	33000	3400
64576	4008321	099860			1000	230	75	28000	3200
Product name	d [mm]	LCL a [mm]	[mm]	h h			B G	3	No.
64502	18	28	55	13.0*1.9	Any	GX6.35	В	20	1
64502	18	28	55	13.0*1.9	Any	GX6.35	В	20	1
64502C	18	28	55	13.0*1.9	Any	GX6.35	В	20	1
64502C	18	28	55	13.0*1.9	Any	GX6.35	В	20	1
64504	18	40	62	9.6*12.5	s90	G6.35	В	20	2
64504	18	40	62	9.6*12.5	s90	G6.35	В	20	2
64505 ¹⁾	18.5	27	53	9.6*12.5	s90	GX6.35	В	20	3
64505 ¹⁾	18.5	27	53	9.5*12.5	s90	GX6.35	В	20	3
64512 ¹⁾	18.5	27	53	10.0*12.5	s90	GX6.35	В	20	3
64514 ¹⁾	18.5	27	53	10.0*12.5	p90	GX6.35	В	20	3
64515 ¹⁾	18.5	27	53	9.8*12.5	s90	GX6.35	В	20	3
64515 ¹⁾	18.5	27	53	10.0*12.5	s90	GX6.35	В	20	3
64516 ¹⁾	18.5	27	53	9.8*12.5	s90	GX6.35	В	20	3
64516 ¹⁾	18.5	27	53	9.7*12.5	s90	GX6.35	В	20	3
64540	24	28	57.5	14.0*15	Any	GX6.35	В	12	4
64540	24	28	57.5	14.0*15	Any	GX6.35	В	12	4
64575	24	38	67.5	14.0*14	Any	GX6.35	В	12	4
64575	24	38	67.5	14.0*14	Any	GX6.35	В	12	4
64576	24	45	67.5	14.0*14		GX6.35	В	12	4
With quartz pinch technology									

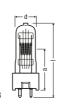
1) With quartz pinch technology

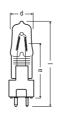
Halogen lamps, medium/high voltage, single-ended













Product name	Product number		ANSI	LIF	W	٧	t[h]	lm	K
93591 1)	4050300	481555	FSY		400	240	75	80003)	3200
93592 1)	4050300	481531	FSX		400	230	75	80003)	3200
64662	4052899	015449			300	230	2000	5000	2900
64662	4052899	144248		M/38	300	240	2000	5000	2900
64672	4008321	098559			500	230	2000	8500	2900
64672	4008321	098535			500	240	2000	8500	2900
64686	4052899	158269	DYR		650	230	50	16500	3200
64686	4052899	158283	DYR		650	240	50	16500	3200
Product name	Ø d [mm]	LCL a [mm]	[mm]	i-p-i i			B 4	4	No.
93591 1)	20	36.5	77	10.7*12.2	s90	GY9.5	С	24	1
93592 1)	20	36.5	77	10.7*12.2	s90	GY9.5	С	24	1
64662	15	46.5	80	9.0*11	Any	GY9.5	D	12	2
64662	17.5	46.5	80	9.0*11	Any	GY9.5	D	12	2
64672	22	46.5	85	12.0*11	Any	GY9.5	D	12	3
64672	22	46.5	85	12.0*11	Any	GY9.5	D	12	3
64686	21	36.5	64	10.0*10 ²⁾	Any	GY9.5	В	12	4
64686	21	36.5	64	10.0*10 ²⁾	Any	GY9.5	В	12	4

Product features

- Operation at mains voltage: 120 V, 230 V, 240 V
- Color temperature: 2,900 K, 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)
- Color temperature: 3,400 K (for maximum luminous efficacy)

Areas of application

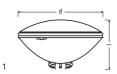
- Professional film and TV work

Available on request
 With monoplane filament
 With internal reflector

PAR56









Product name	Product number	W	V	t[h]	cd	
PAR56 WFL	4008321362209	300	12	1200	12000	38/20
Product name	Ø d [mm]	[mm]			4	No.
PAR56 WFL	178	127	hs30 1)	not relevant	6	1

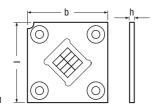
¹⁾ Do not tilt perpendicular to the filament

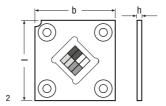
See safety advice no. 6 on page 92

SplitStar® S32











Product name	Product number	W	Current per channel (max.) [A]	K	cd/ /mm	lm	b [mm]	[mm]	t h
SplitStar S32 CW	4052899388024	300	5	6200	140 ¹⁾	200001)	25.4	25.4	2.53
SplitStar S32 RGBW	tbd	277	red 4 green 5 blue 5 white 5	red 638 nm true green 524 nm deep blue 446 nm white 6200 K	701)	red 1450 ¹⁾³⁾ green 2825 ¹⁾³⁾ blue 2100 ¹⁾³⁾ white 5000 ¹⁾³⁾	25.4	25.4	2.53
SplitStar S32 RGBA	tbd	180	converted amber 3 converted green 5 red 4 blue 5	2700–7000	701)	10000 1)3)	25.4	25.4	2.53

Product name	Number of channels	Ra	Temperature control	Thermal resistance R _{th} (module) [K/W]	Operating temperature [°C]	Viewing angle [°]	Emitting area [mm²]	4	No.
SplitStar S32 CW	2	70	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	1
SplitStar S32 RGBW	4	-	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	2
SplitStar S32 RGBA	4	≤93	NTC	0.054)	-251202)	180	6.9 x 6.7	18	2

Pulse mode operation
 NTC reading
 Not Planckian locus
 NTC to backplane

Product features

- Up to 20,000 lm (CW)1)
- Up to 140 cd/mm² (CW)¹⁾
- Scalable design
- LED chips are wired in series circuits
- Electrically insulated
- Tunable white color temperature with high CRI from 2,700 to 7,000 K
- Customized versions on request

Product benefits

- Cutting-edge performance enables new generation of LED fixtures with superior light output
- Very high luminance, perfect for beam and spot lights
- Chips can be driven with standard voltage and current levels 5 A max. (SELV)
- Module is electrically insulated and can be mounted directly onto heat sink

Areas of application

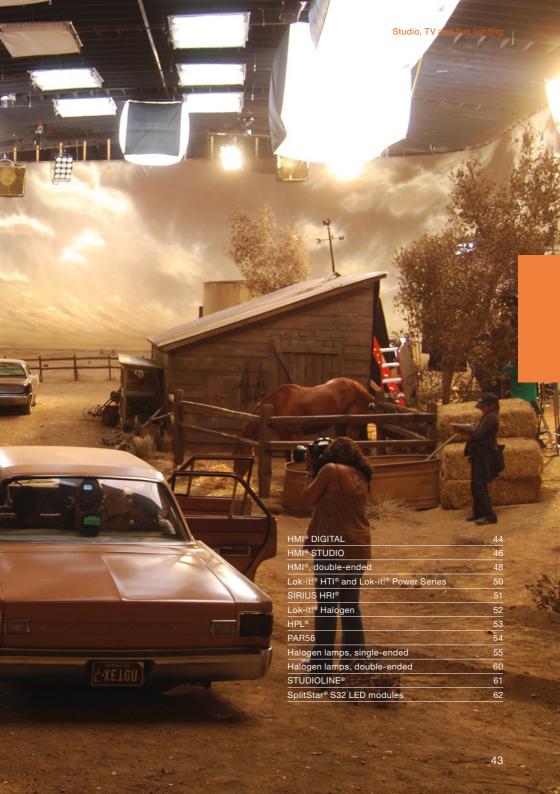
- Entertainment
- Architectural lighting
- Theater lighting
- Professional lighting

See safety advice no. 7 on page 92

More information about the focus product

See SplitStar® S32 on pages 20/21





HMI® DIGITAL











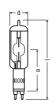


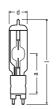
Product name	Product number	W	٧	Α	t[h]	lm
HMI DIGITAL 200W	4052899984158	200	70	3.0	200	16000
HMI DIGITAL 400W	4052899984165	400	70	6.9	650	33000
HMI DIGITAL 575W	4052899984172	575	95	6.9	1000	49000
HMI DIGITAL 800W	4052899984189	800	95	8.4	1000	65000
HMI DIGITAL 1200W	4052899984196	1200	100	13.8	1000	110000
HMI DIGITAL 1600W	4052899152687	1600	140	10.7	750	150000
HMI DIGITAL 1800W	4052899984202	1800	140	13.0	750	165000
HMI DIGITAL 2500W	4052899984295	2500	115	25.6	500	240000
HMI DIGITAL 4000W	4052899984301	4000	200	24.0	500	380000
HMI DIGITAL 6000W 1)	4052899152670	6000	123	55	500	600000
HMI DIGITAL 9000W 1)	4052899152694	9000	160	56	400	875000
HMI DIGITAL 12000W ²⁾	4050300650418	12000	160	75	500	1150000
HMI DIGITAL 18000W ²⁾	4008321098955	18000	225	88	350	1600000

¹⁾ Currently without UVS 2) Without UVS











Product name	K	d [mm]	[mm]	LCL a [mm]			4	Q No.
HMI DIGITAL 200W	6000	20	80	39	Any	GZY9.5	10	1
HMI DIGITAL 400W	6000	23	110	60	Any	GZZ9.5	10	2
HMI DIGITAL 575W	6000	30	145	70	Any	G22	10	3
HMI DIGITAL 800W	6000	30	145	70	Any	G22	10	3
HMI DIGITAL 1200W	6000	42	200	107	Any	G38	1	4
HMI DIGITAL 1600W	6000	38	175	85	Any	G22	1	5
HMI DIGITAL 1800W	6000	42	200	107	Any	G38	1	4
HMI DIGITAL 2500W	6000	60	225	127	Any	G38	1	6
HMI DIGITAL 4000W	6000	75	250	142	Any	GX38	1	6
HMI DIGITAL 6000W 1)	6000	75	360	210	Any	GX38	1	7
HMI DIGITAL 9000W 1)	6000	80	380	210	Any	GX38	1	7
HMI DIGITAL 12000W ²⁾	6000	100	455	255	Any	GX38	1	7
HMI DIGITAL 18000W ²⁾	6000	100	495	260	Any	GX51	1	8

¹⁾ Currently without UVS 2) Without UVS

Product features

- Most types with UV stop (UVS)
- Color temperature of 6,000 K
- High color rendering index of > 90
- Extremely bright light: up to 100 lm/w
- Dimmable

Product benefits

- Suited for both analog and digital film production
- Hot restart capability
- Improved stability and design
- Robust stems, resulting in less breakage during transport

Areas of application

- Film sets
- Television studios
- Theater stages

See safety advice no. 4 on page 92

More information about the focus product See HMI® DIGITAL on pages 10/11

HMI® STUDIO

















Product name	Product number			W	V	Α	t[h]	lm
HMI STUDIO 200W	4052899	984110		200	70	3.0	200	12800
HMI STUDIO 400W	4052899	984127		400	70	6.9	650	26400
HMI STUDIO 575W	4052899	984134		575	95	6.9	1000	39200
HMI STUDIO 800W	4052899	984141		800	95	8.4	1000	52000
HMI STUDIO 1200W	4052899	984196		1200	100	13.8	1000	88000
HMI STUDIO 1600W	4052899	152687		1600	140	10.7	750	120000
HMI STUDIO 1800W	4052899	9984202		1800	140	13.0	750	132000
Product name	K	d [mm]	[mm]	LCL a [mm]				No.
HMI STUDIO 200W	3200	20	80	39	Any	GZY9.5	10	1
HMI STUDIO 400W	3200	23	110	60	Any	GZZ9.5	10	2
HMI STUDIO 575W	3200	30	145	70	Any	G22	10	3
HMI STUDIO 800W	3200	30	145	70	Any	G22	10	3
HMI STUDIO 1200W	3200	42	200	107	Any	G38	1	5
HMI STUDIO 1600W	3200	38	175	85	Any	G22	1	4
HMI STUDIO 1800W	3200	42	200	107	Anv	G38	1	5

Product features

- Color temperature of 3,200 K
- High CRI of more than 90
- UV stop (UVS)

Product benefits

- Twice as bright as tungsten halogen lamps with similar wattages
- Same lifespan as our HMI[®] lamps with 6,000 K color temperature
- Cost-effective alternative to managing and maintaining multiple tungsten halogen and metal halide lamps and fixtures
- Time savings associated with setting up fewer varieties of lamps, fixtures and CTO filters to light a set
- Plug-and-play solution for daylight fixtures

Areas of application

- Movie studios
- Film sets
- Theater stages

See safety advice no. 4 on page 92

More information about the focus product See HMI® STUDIO on pages 12/13

HMI®, double-ended







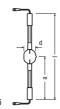


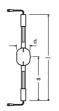
Product name	Product number	W	V	Α	t [h]	Im
HMI 575 W/DXS	4008321285102	575	95	7	1000	49000
HMI 1200 W/DXS	4008321931153	1200	100	13.8	1000	110000
HMI 2500 W/S XS	4050300025780	2500	115	25.6	500	240000
HMI 2500 W/DXS	4008321182197	2500	115	25.6	500	240000
HMI 4000 W/DXS	4008321210203	4000	200	24	500	380000
HMI 6000 W/DXS	4008321210210	6000	123	55	500	570000
HMI 12000 W/DXS	4008321210227	12000	160	84	500	1150000
HMI 18000 W/DXS	4008321370280	18000	225	86	500	1700000
HMI 24000 W/DXS	4008321355805	24000	280	88	500	2300000













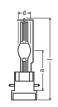
Product name	d [mm]	[mm]	[mm]			4	No.
HMI 575 W/DXS	21	135	115	Any	SFc10-4	1	1
HMI 1200 W/DXS	27	220	180	Any	SFc15.5	1	2
HMI 2500 W/S XS	31.5	210	150	p30	SFa21-12	1	3
HMI 2500 W/DXS	31.5	355	290	p30	SFa21	1	3
HMI 4000 W/DXS	36	405	340	p15	SFa21	1	3
HMI 6000 W/DXS	54	450		p15	S25.5	1	4
HMI 12000 W/DXS	64	470		p15	S30	1	5
HMI 18000 W/DXS	70	500		p15	S30	1	6
HMI 24000 W/DXS	83	500		p15	S30	1	7

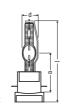
See safety advice no. 4 on page 92

Lok-it!®













Product name	Product number		W	V	Α	t [h]	lm	K
Lok-it!®								
Lok-it! HTI 400 W/60/P28	4008321	605481	400	67	6	750	30000	6000
Lok-it! HTI 700 W/60/P28	4052899	179790	700	60	11.6	750	50000	6000
Lok-it! HTI 700 W/75/P28	4008321	510549	700	100	11	750	50000	7500
Lok-it! HTI 700 W/75/P50	4008321	485205	700	100	10	750	50000	7500
Lok-it! HTI 1500 W/60/P50	4008321	553416	1500	100	15	750	135000	6000
Lok-it! HTI 1500 W/60/P50 M3W	4008321	818997	1500	100	15	750	130000	6000
Lok-it!® Power Series								
Lok-it! 1000/PS	4052899	965157	1000	85	12	950	85000	6000
Lok-it! 1000/PS Blue	4052899	965171	1000	71	14	750	70000	7500
Lok-it! 1000/PS Brilliant	4052899	965164	1000	85	12	750	82000	5900
Lok-it! 1400/PS Brilliant	4052899	965195	1400	90	15.5	750	120000	6000
Lok-it! 1700/PS	4052899	965201	1700	85	20	750	135000	6000
Product name	Ra	d [mm]	1	LCL	+		4	
	··u	d [mm]	[mm]	à [mm]	i			No.
Lok-it!®								No.
Lok-it! HTI 400 W/60/P28	> 85	17	103	56	3.4	PGJX28	1	No. 1
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28					3.4	PGJX28 PGJX28	1 1	1 1
Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50	> 85 > 85 85	17 18 18	103 112 128	56 56 65	4.1	PGJX28 PGJX28 PGJX28	1	1 1 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28	> 85 > 85 85 > 85	17 18 18 20	103 112 128 125	56 56 65 65	4.1 4 4	PGJX28 PGJX28 PGJX28 PGJX28	1 1 1	No. 1 1 2 1 1
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 65 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1	1 1 2 1 2 2 1 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28	> 85 > 85 85 > 85	17 18 18 20	103 112 128 125	56 56 65 65	4.1 4 4	PGJX28 PGJX28 PGJX28 PGJX28	1 1 1	No. 1 1 2 1 1
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 65 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1	1 1 2 1 2 2 1 2
Lok-it!* Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 65 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1	1 1 2 1 2 2 1 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W Lok-it!® Power Series	> 85 > 85 85 > 85 > 85 > 85 > 85	17 18 18 20 26 26	103 112 128 125 128 128	56 56 65 65 65 65	4.1 4 4 5.8 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50 PGJX28	1 1 1 1 1	1 1 2 1 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W Lok-it!® Power Series Lok-it! 1000/PS	> 85 > 85 85 > 85 > 85 > 85 > 85 > 85	17 18 18 20 26 26 26	103 112 128 125 128 128	56 56 65 65 65 65	4.1 4 4 5.8 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX28 PGJX28 PGJX36	1 1 1 1 1 1 1	1 1 2 1 2 2 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/50/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W Lok-it! HTI 1500 W/60/P50 M3W Lok-it! HTI 1500 W/60/P50 M3W Lok-it! 1000/PS Lok-it! 1000/PS Lok-it! 1000/PS	> 85 > 85 85 > 85 > 85 > 85 > 85 > 85 >	17 18 18 20 26 26 26	103 112 128 125 128 128 128	56 56 65 65 65 65 65	4.1 4 4 5.8 5.8 5.5 5.5	PGJX28 PGJX28 PGJX28 PGJX28 PGJX28 PGJX20 PGJX28 PGJX28	1 1 1 1 1 1 1 1 1	1 1 2 1 2 2 2

Product features

- eXtreme Seal technology for discharge lamps

Product benefits

- Rapid relamping with bayonet lock

See safety advice no. 1 on page 92

More information about the focus product

See Lok-it!® Power Series on pages 16/17

SIRIUS HRI®



















Time of the second

Product name	Produc number	-	W	Α	t[h]	lm	K	
SIRIUS HRI 100W	405289	9329119	100	1.8	6000	3680	9000	
SIRIUS HRI 132W	405289	9028708	132	1.9	6000	5150	9200	
SIRIUS HRI 140W RO	405289	9258969	140	1.9	6000	5400	9200	
SIRIUS HRI 190W +	400832	1866592	190	2.7	3000	8100	8200	
SIRIUS HRI 230W	400832	1810311	230	3.3	2500	9500	8000	
SIRIUS HRI 280W	400832	1810342	280	4	2000	11500	7800	
SIRIUS HRI 280W RO	405289	9110397	280	4	2000	11500	7800	
SIRIUS HRI 330W	400832	1810373	330	5	1500	18000	7400	
SIRIUS HRI 330W XL	405289	9195431	330	5	1500	16500	7250	
SIRIUS HRI 330W X8	405289	9140295	330	4.4	1500	18000	8000	
SIRIUS HRI 440W	405289	9259096	440	5.3	1500	22000	7000	
SIRIUS HRI 440W S	405289	9329140	440	5.3	1500	22800	7000	
Product name	Ra	b [mm]	[mm]			4	No.	
	R _a		[mm] 53	Any	1.0	1		
name		[mm]		Any Any				
name SIRIUS HRI 100W	60	45	53		1.0	1	No. 1	
SIRIUS HRI 100W SIRIUS HRI 132W	60 60	45 46	53 44	Any	1.0	1 1	No. 1	
Name SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO	60 60 60	45 46 46	53 44 44	Any Any	1.0 1.0 1.0	1 1 1	No. 1 2 2	
name SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W +	60 60 60 73	45 46 46 51	53 44 44 54.5	Any Any Any	1.0 1.0 1.0 0.8	1 1 1 1	No. 1 2 2 3	
INIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 1340W RO SIRIUS HRI 140W R SIRIUS HRI 190W + SIRIUS HRI 230W	60 60 60 73 75	45 46 46 51 51	53 44 44 54.5 54.5	Any Any Any Any	1.0 1.0 1.0 0.8 1.0	1 1 1 1 1	1 2 2 3 3 3	
INIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W	60 60 60 73 75 78	45 46 46 51 51	53 44 44 54.5 54.5 54.5	Any Any Any Any Any	1.0 1.0 1.0 0.8 1.0 0.9	1 1 1 1 1 1	1 2 2 3 3 3 3 3	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W SIRIUS HRI 280W RO	60 60 60 73 75 78	45 46 46 51 51 51 51	53 44 44 54.5 54.5 54.5 54.5	Any Any Any Any Any Any	1.0 1.0 1.0 0.8 1.0 0.9	1 1 1 1 1 1 1	No. 1 2 2 3 3 3 3 3 3 3 3	
SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W SIRIUS HRI 280W RO SIRIUS HRI 330W	60 60 60 73 75 78 78 86	45 46 46 51 51 51 51 51 56	53 44 44 54.5 54.5 54.5 54.5 63	Any Any Any Any Any Any Any Any Any	1.0 1.0 1.0 0.8 1.0 0.9 0.9	1 1 1 1 1 1 1 1 1 1 1	No. 1 2 2 3 3 3 3 4	
Name SIRIUS HRI 100W SIRIUS HRI 132W SIRIUS HRI 140W RO SIRIUS HRI 190W + SIRIUS HRI 230W SIRIUS HRI 280W SIRIUS HRI 280W RO SIRIUS HRI 330W SIRIUS HRI 330W SIRIUS HRI 330W SIRIUS HRI 330W	60 60 60 73 75 78 78 86 71	45 46 46 51 51 51 51 51 56	53 44 44 54.5 54.5 54.5 54.5 63 63	Any	1.0 1.0 1.0 0.8 1.0 0.9 0.9 1.0	1 1 1 1 1 1 1 1 1 1 1 1	No. 1 2 2 3 3 3 3 4 5	

Product features

- High luminance through very short arc
- Bright light for brilliant light effects
- Long lifetime

Product benefits

- Lightweight and compact reflector lamps with ECG
- Perfectly suited for small and lightweight moving heads
- Optimized burner design allows any burning position
- Easy lamp replacement
- Stable light output over the entire lifetime

See safety advice no. 1 on page 92

More information about the focus product See SIRIUS HRI® on pages 18/19

Lok-it!®







Product name	Product number	W	V	t [h]	lm	K	d [mm]
Lok-it! 1200W 80V/32/P50	4008321382795	1200	80	250	37500	3200	25
Lok-it! 1200W 240V/32/P50	4052899245419	1200	240	300	29000	3200	25
Product name	[mm]	LCL a [mm]	h			4	No.
Lok-it! 1200W 80V/32/P50	129.5	84	14.7*14.5	Any	PGJX 50	12	1
Lok-it! 1200W 240V/32/P50	140	84	14.7*14.5	Any	PGJX 50	12	1

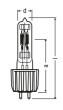


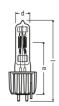
Looking for a solution for smaller moving heads?

See SIRIUS HRI® on page 51

HPL®









Product name	Product number	W	V	t[h]	Im	K	d [mm]
HPL 575/230	4050300461816	575	230	400	14900	3200	19
HPL 575/240	4050300461830	575	240	400	14900	3200	19
HPL 575/230/X	4008321090102	575	230	1500	11780	3050	19
HPL 575/240/X	4008321174444	575	240	1500	11780	3050	19
HPL 750/230	4050300654201	750	230	300	19750	3200	19
HPL 750/240/X	4050300654225	750	240	300	19750	3200	19
HPL 750/230/X	4008321090324	750	230	1500	15600	3050	19
HPL 750/240/X	4008321174468	750	240	1500	15600	3050	19
Product name	[mm]	LCL a [mm]	h h			4	No.
HPL 575/230	104	60.3	9.5*11.51)	Any	2 pins	12	1
HPL 575/240	104	60.3	9.5*11.51)	Any	2 pins	12	1
HPL 575/230/X	104	60.3	14.5*11 1)	Any	2 pins	12	1
HPL 575/240/X	104	60.3	14.0*141)	Any	2 pins	12	1
HPL 750/230	101	60.3	7.5*11.5 ¹⁾	Any	2 pins	12	2
HPL 750/240/X	101	60.3	7.5*11.5 ¹⁾	Any	2 pins	12	2
HPL 750/230/X	104	60.3	15.5*11 1)	Any	2 pins	12	2
HPL 750/240/X	101	60.3	15.5*11 ¹⁾	Any	2 pins	12	2

¹⁾ Type of filament 6-C8

Product benefits

- High-performance lamps

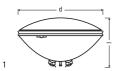
- Optimum use of the generated light in the spotlight

See safety advice no. 5 on page 92

PAR56









Product name	Product number	W	V	t [h]	cd	ß	
PAR56 WFL	4008321362209	300	12	1200	12000	38/20	
Product name	d [mm]	[mm]			4	No.	
PAR56 WFL	178	127	hs30 1)	not relevant	6	1	

1) Do not tilt perpendicular to the filament

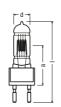
See safety advice no. 6 on page 92

Halogen lamps, single-ended











Product name	Product number	ANSI	LIF	W	V	t[h]	lm	K
64743	4008321225702	FEL		1000	120	300	27500	3200
64744	4008321554833	FWP	T/19	1000	230	750	20500	3000
64744	4008321554857	FWP	T/19	1000	240	750	20500	3000
64745	4008321468611	FVA	CP/70	1000	230	200	26000	3200
64745	4008321468659	FVA	CP/70	1000	240	200	26000	3200
64747	4008321468635	FKJ	CP/71	1000	230	200	26000	3200
64747	4008321468741	FKJ	CP/71	1000	240	200	26000	3200
93734	4050300350073	FEP	CP/77	1000	240	300	23000	3200
Product name	Ø d [mm]	[mm]	LCL a [mm]	h h			3	No.
64743	20	101	60.3	11.4*24.4	Any	G9.5	12	1
64744	26	110	55	13.0*15.0	s90	GX9.5	20	2
64744	26	110	55	13.0*15.0	s90	GX9.5	20	2
64745	26	110	55	13.0*15.0	s90	GX9.5	20	2
64745	26	110	55	13.0*15.0	s90	GX9.5	20	2
64747	26	140	63.5	13.0*15.0	s90	G22	20	3
64747	26	140	63.5	13.0*15.0	s90	G22	20	3
93734	20	102	60.3	5.7*27.0	Any	2 pins	12	1

Product features

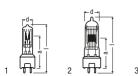
- Operation at mains voltage: 120 V, 230 V, 240 V
- Color temperature: 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)

Areas of application

- Professional film and TV work
- Theater and concert stages
- Entertainment

See safety advice no. 5 on page 92

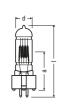
Halogen lamps, single-ended

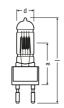




Product name	Product number	ANSI	LIF	W	V	t[h]	lm	K
64673	4052899015463	FSL	CP/81	300	230	200	7500	3100
64673	4052899015487	FSK	CP/81	300	240	200	7500	3100
64670	4008321624017	GCV	T/25	500	230	300	11000	3000
64670	4008321624031	GCV	T/25	500	240	300	11000	3000
64674	4052899015500	FRH	CP/82	500	230	200	13500	3200
64674	4052899015524	FRJ	CP/82	500	240	200	13500	3200
64680	4008321098573		A1/244	500	230	50	14500	3200
64680	4008321098597		A1/244	500	240	50	14500	3200
64716	4008321623973	GKV		600	230	250	14000	3050
64716	4008321623997	GKV		600	240	250	14000	3050
64717	4008321624215	FRL	CP/89	650	230	150	16250	3200
64717	4008321624239	FRM	CP/89	650	240	150	16250	3200
64718	4008321624253	GCT	T/27	650	230	400	14500	3000
64718	4008321624277	GCT	T/27	650	240	400	14500	3000
64719	4008321638076		T/12	650	230	750	12000	3000
64720	4008321638090		CP/23	650	230	100	16800	3200
64721	4008321638113	FKH	CP/39	650	230	100	16800	3200
64678	4008321624055			800	230	250	20000	3200









Product name	d [mm]	[mm]	LCL a [mm]	h			4	No.
64673	18	80	46.5	6.5*13	Any	GY9.5	12	1
64673	18	80	46.5	6.5*13	Any	GY9.5	12	1
64670	23	90	46.5	11.0*11.0	s90	GY9.5	12	2
64670	23	90	46.5	11.0*11.0	s90	GY9.5	12	2
64674	18	80	46.5	8.0*18	Any	GY9.5	12	1
64674	18	80	46.5	8.0*18	Any	GY9.5	12	1
64680	22	75	36.5	10.0*10.01)	Any	GY9.5	12	2
64680	22	75	36.5	10.0*10.0 1)	Any	GY9.5	12	2
64716	19	101	60.5	9.0*13.0	s90	G9.5	12	3
64716	19	101	60.5	9.0*13.0	s90	G9.5	12	3
64717	23	90	46.5	26.0*33.0	s90	GY9.5	12	2
64717	23	90	46.5	26.0*33.0	s90	GY9.5	12	2
64718	23	90	46.5	10.0*10.0	s90	GY9.5	12	2
64718	23	90	46.5	10.0*10.0	s90	GY9.5	12	2
64719	26	110	55	13.0*11.0	s90	GX9.5	20	4
64720	26	110	55	13.0*17.0 ¹⁾	s90	GX9.5	20	4
64721	26	140	63.5	13.0*17.0 ¹⁾	s90	G22	20	5
64678	19	101	60.5	9.0*13.0	s90	G9.5	12	3

1) With monoplane filament

Product features

- Operation at mains voltage: 230 V, 240 V
- Color temperature: 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)

Areas of application

- Professional film and TV work
- Theater and concert stages
- Entertainment

See safety advice no. 5 on page 92

Halogen lamps, single-ended









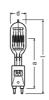


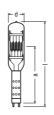
Product name	Product number	ANSI	LIF	W	V	t [h]	lm	K
64752	4008321624475	FWS	T/29	1200	230	400	28600	3000
64752	4008321624499	FWS	T/29	1200	240	400	28600	3000
64754	4008321624529		CP/90	1200	230	200	30000	3200
64756	4008321624550		CP/93	1200	230	200	30000	3200
93723	4008321370594		CP/110	1200	80	300	37500	3200
64777	4008321632197		CP/92	2000	230	400	52000	3200
64787	4008321653994		CP/75	2000	230	400	52000	3200
64788	4008321632173	FTM	CP/72	2000	230	400	52000	3200
64788	4008321632180	FTM	CP/72	2000	240	400	52000	3200
64789	4008321654021	FKK	CP/73	2000	230	400	52000	3200
64789	4008321654038	FKK	CP/73	2000	240	400	52000	3200
64796	4008321653987		CP/91	2500	230	400	65000	3200
64797	4052899129542			3000	230	400	82000	3200
64805	4052899129580		CP/85	5000	120	400	135000	3200
64805	4052899129566		CP/85	5000	230	400	135000	3200
64805	4052899129573		CP/85	5000	240	400	135000	3200
64815	4050300780696	ECR	CP/83	10000	230	350	285000	3200
64818	4008321792051	BCM	CP/99	20000	230	350	580000	3200













Product name	d [mm]	[mm]	LCL a [mm]	-b- 1 -b- 1			4	No.
64752	27	125	67	13.0*15.0	s90	GX9.5	20	1
64752	27	125	67	13.0*15.0	s90	GX9.5	20	1
64754	27	125	67	13.0*15.0	s90	GX9.5	20	1
64756	26	140	63.5	13.0*15.0	s90	G22	20	2
93723	22	120.7	63.5	12.7*12.7	s135	2 pins	12	3
64777	35	175	90	20.0*19.0	s90	G22	12	3
64787	35	160	75	20.0*19.0	s90	G22	12	3
64788	35	145	70	20.0*19.0	s90	GY16	12	4
64788	35	145	70	20.0*19.0	s90	GY16	12	4
64789	35	210	127	20.0*19.0	s90	G38	6	5
64789	35	210	127	20.0*19.0	s90	G38	6	5
64796	35	175	90	20.0*19.0	s90	G22	12	3
64797	45	210	127	33.0*35.0	s90	G38	6	6
64805	60	279.4	165	26.0*33.0	s90	G38	6	7
64805	60	279	165	26.0*33.0	s90	G38	6	7
64805	61	279	165	26.0*33.0	s90	G38	6	7
64815	80	400	254	60.0*35.0	s45	G38	6	8
64818	100	550	354	67.0*50.0	s45	G38	4	9

Product features

- Operation at mains voltage: 80V, 120V, 230V, 240V
- Color temperature: 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)

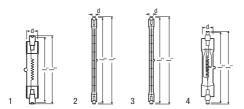
Areas of application

- Professional film and TV work
- Theater and concert stages
- Entertainment

See safety advice no. 5 on page 92

Halogen lamps, double-ended







Product name	Product number		ANSI	LIF	W	V	t [h]	Im
64571	40503000	14180	DXX	P2/13	800	230	75	21000
64571	40503002	83388	DXX	P2/13	800	240250	75	21000
64572	40083213	25181		P2/35	1000	230	150	25000
64579	40503000	14104	FDG		1000	115120	15	33000
64580	40503000	06888		P1/12	1000	230	15	35000
64580	40503002	83173		P1/12	1000	240	15	35000
64583	40503002	49094		P2/20	1000	230	300	27000
64583	40503004	11477		P2/20	1000	240	300	27000
64741	40503002	09333	EKM	P2/7	1000	230	200	25000
64741	40503002	83197	EKM	P2/7	1000	240	200	25000
64751	40503002	14641		P2/12	1250	230	200	33500
64751	40503002	83357		P2/12	1250	240	200	33500
64781	40503002	29997	FEX	P2/27	2000	230	300	50000
64781	40503002	83500	FEX	P2/27	2000	240	300	50000
Product name	K	d [mm]	[mm]	[mm]			4	Q No.
64571	3200	17	75	78	Horizontal 1)	R7s	50	1
64571	3200	17	75	78	Horizontal 1)	R7s	50	1
64572	3200	18	94	88	Any	R7s	50	1
64579	3200	12	122	122	p15 ¹⁾	R7s	12	2
64580	3400	12	127	122	p15	R7s	12	2
64580	3400	12	127	122	p15	R7s	12	2
64583	3200	10	114	114	Any	R7s	12	2
64583	3200	12	114	114	Any	R7s	12	2
64741	3200	12	186	186	s180	R7s	12	3
64741	3200	12	186	186	s180	R7s	12	3
64751	3200	12	186	186	p15	R7s	12	3
64751	3200	12	186	186	p15	R7s	12	3
64781	3200	30	138	139	p15	RX7s	12	4
64781	3200	30	138	139	p15	RX7s	12	4

1) Burning position preferably horizontal, vertical possible for a short time

Product features

- Operation at mains voltage: 120 V, 230 V, 240 V
- Color temperature: 3,200 K (for professional film and TV work)
- Color temperature: 3,400 K (for maximum luminous efficacy)

Areas of application

- Professional film and TV work
- Theater and concert stages

See safety advice no. 5 on page 92

STUDIOLINE®









Product name	Product number	W	d [mm]	[mm]	t [h]	lm	K		a	Q No.
STUDIOLINE 55 W/3200 K	4050300575292	55	535	18	80001)	3800	3200	2G11	10	1
STUDIOLINE 55 W/5600 K	4050300575278	55	535	18	80001)	3800	5600	2G11	10	1

1) Failure rate 2 % the first 8,000 h; this statement must be restricted only to attributable lamp faults

Product features

Special phosphor combination

Product benefits

 Can be used with halogen or HMI[®] lamps without any problems

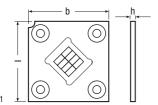
Areas of application

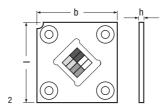
- Film shooting
- Matched to use with electronic cameras

SplitStar® S32











Product name	Product number	W	Current per channel (max.) [A]	K	cd/ /mm	lm	b [mm]	[mm]	h [mm]
SplitStar S32 CW	4052899388024	300	5	6200	140 ¹⁾	200001)	25.4	25.4	2.53
SplitStar S32 RGBW	tbd	277	red 4 green 5 blue 5 white 5	red 638 nm true green 524 nm deep blue 446 nm white 6200 K	701)	red 1450 ¹⁾³⁾ green 2825 ¹⁾³⁾ blue 2100 ¹⁾³⁾ white 5000 ¹⁾³⁾	25.4	25.4	2.53
SplitStar S32 RGBA	tbd	180	converted amber 3 converted green 5 red 4 blue 5	2700–7000	701)	10000 1)3)	25.4	25.4	2.53

Product name	Number of channels	Ra	Temperature control	Thermal resistance R _{th} (module) [K/W]	Operating temperature [°C]	Viewing angle [°]	Emitting area [mm²]	4	Q No.
SplitStar S32 CW	2	70	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	1
SplitStar S32 RGBW	4	-	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	2
SplitStar S32 RGBA	4	≤93	NTC	0.054)	-251202)	180	6.9 x 6.7	18	2

Pulse mode operation
 NTC reading
 Not Planckian locus
 NTC to backplane

Product features

- Up to 20,000 lm (CW)1)
- Up to 140 cd/mm² (CW)¹⁾
- Scalable design
- LED chips are wired in series circuits
- Electrically insulated
- Tunable white color temperature with high CRI from 2,700 to 7,000 K
- Customized versions on request

Product benefits

- Cutting-edge performance enables new generation of LED fixtures with superior light output
- Very high luminance, perfect for beam and spot lights
- Chips can be driven with standard voltage and current levels 5 A max. (SELV)
- Module is electrically insulated and can be mounted directly onto heat sink

Areas of application

- Entertainment
- Architectural lighting
- Theater lighting
- Professional lighting

See safety advice no. 7 on page 92

More information about the focus product

See SplitStar® S32 on pages 20/21

Standing ovations guaranteed! Stage and theater lighting

Light is the essential requisite for the perfect stage performance. All over the world, OSRAM helps to show actors, ballet dancers and other artists in their best light – with stable color temperatures, high luminance and outstanding luminous efficacies.



HMI® DIGITAL











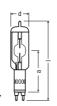


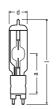
Product name	Product number	W	V	Α	t [h]	lm
HMI DIGITAL 200W	4052899984158	200	70	3.0	200	16000
HMI DIGITAL 400W	4052899984165	400	70	6.9	650	33000
HMI DIGITAL 575W	4052899984172	575	95	6.9	1000	49000
HMI DIGITAL 800W	4052899984189	800	95	8.4	1000	65000
HMI DIGITAL 1200W	4052899984196	1200	100	13.8	1000	110000
HMI DIGITAL 1600W	4052899152687	1600	140	10.7	750	150000
HMI DIGITAL 1800W	4052899984202	1800	140	13.0	750	165000
HMI DIGITAL 2500W	4052899984295	2500	115	25.6	500	240000
HMI DIGITAL 4000W	4052899984301	4000	200	24.0	500	380000
HMI DIGITAL 6000W 1)	4052899152670	6000	123	55	500	600000
HMI DIGITAL 9000W 1)	4052899152694	9000	160	56	400	875000
HMI DIGITAL 12000W ²⁾	4050300650418	12000	160	75	500	1150000
HMI DIGITAL 18000W ²⁾	4008321098955	18000	225	88	350	1600000

¹⁾ Currently without UVS 2) Without UVS











Product name	K	d [mm]	I [mm]	LCL a [mm]			4	No.
HMI DIGITAL 200W	6000	20	80	39	Any	GZY9.5	10	1
HMI DIGITAL 400W	6000	23	110	60	Any	GZZ9.5	10	2
HMI DIGITAL 575W	6000	30	145	70	Any	G22	10	3
HMI DIGITAL 800W	6000	30	145	70	Any	G22	10	3
HMI DIGITAL 1200W	6000	42	200	107	Any	G38	1	4
HMI DIGITAL 1600W	6000	38	175	85	Any	G22	1	5
HMI DIGITAL 1800W	6000	42	200	107	Any	G38	1	4
HMI DIGITAL 2500W	6000	60	225	127	Any	G38	1	6
HMI DIGITAL 4000W	6000	75	250	142	Any	GX38	1	6
HMI DIGITAL 6000W 1)	6000	75	360	210	Any	GX38	1	7
HMI DIGITAL 9000W 1)	6000	80	380	210	Any	GX38	1	7
HMI DIGITAL 12000W ²⁾	6000	100	455	255	Any	GX38	1	7
HMI DIGITAL 18000W ²⁾	6000	100	495	260	Any	GX51	1	8

¹⁾ Currently without UVS 2) Without UVS

Product features

- Most types with UV stop (UVS)
- Color temperature of 6,000 K
- High color rendering index of > 90
- Extremely bright light: up to 100 lm/w
- Dimmable

Product benefits

- Suited for both analog and digital film production
- Hot restart capability
- Improved stability and design
- Robust stems, resulting in less breakage during transport

Areas of application

- Theater stages
- Film sets
- Television studios

See safety advice no. 4 on page 92

More information about the focus product

See HMI® DIGITAL on pages 10/11

HMI® STUDIO

















Product name	Product number			W	V	Α	t[h]	lm
HMI STUDIO 200W	4052899	984110		200	70	3.0	200	12800
HMI STUDIO 400W	4052899	4052899984127			70	6.9	650	26400
HMI STUDIO 575W	4052899	4052899984134			95	6.9	1000	39200
HMI STUDIO 800W	4052899	4052899984141			95	8.4	1000	52000
HMI STUDIO 1200W	4052899	4052899984196			100	13.8	1000	88000
HMI STUDIO 1600W	4052899	4052899152687			140	10.7	750	120000
HMI STUDIO 1800W	4052899	984202		1800	140	13.0	750	132000
Product name	K	d [mm]	[mm]	LCL a [mm]				No.
HMI STUDIO 200W	3200	20	80	39	Any	GZY9.5	10	1
HMI STUDIO 400W	3200	23	110	60	Any	GZZ9.5	10	2
HMI STUDIO 575W	3200	30	145	70	Any	G22	10	3
HMI STUDIO 800W	3200	30	145	70	Any	G22	10	3
HMI STUDIO 1200W	3200	42	200	107	Any	G38	1	5
HMI STUDIO 1600W	3200	38	175	85	Any	G22	1	4
HMI STUDIO 1800W	3200	42	200	107	Anv	G38	1	5

Product features

- Color temperature of 3,200 K
- High CRI of more than 90
- UV stop (UVS)

Product benefits

- Twice as bright as tungsten halogen lamps with similar wattages
- Same lifespan as our HMI® lamps with 6,000 K color temperature
- Cost-effective alternative to managing and maintaining multiple tungsten halogen and metal halide lamps and fixtures
- Time savings associated with setting up fewer varieties of lamps, fixtures and CTO filters
- Plug-and-play solution for daylight fixtures

Areas of application

- Theater stages
- Movie studios
- Film sets

See safety advice no. 4 on page 92

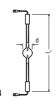
More information about the focus product See HMI® STUDIO on pages 12/13

HMI®, double-ended







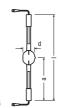


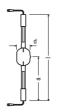
Product name	Product number	W	V	Α	t [h]	Im
HMI 575 W/DXS	4008321285102	575	95	7	1000	49000
HMI 1200 W/DXS	4008321931153	1200	100	13.8	1000	110000
HMI 2500 W/S XS	4050300025780	2500	115	25.6	500	240000
HMI 2500 W/DXS	4008321182197	2500	115	25.6	500	240000
HMI 4000 W/DXS	4008321210203	4000	200	24	500	380000
HMI 6000 W/DXS	4008321210210	6000	123	55	500	570000
HMI 12000 W/DXS	4008321210227	12000	160	84	500	1150000
HMI 18000 W/DXS	4008321370280	18000	225	86	500	1700000
HMI 24000 W/DXS	4008321355805	24000	280	88	500	2300000













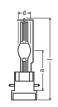
Product name	d [mm]	I1 max. [mm]	[mm]			4	No.
HMI 575 W/DXS	21	135	115	Any	SFc10-4	1	1
HMI 1200 W/DXS	27	220	180	Any	SFc15.5	1	2
HMI 2500 W/S XS	31.5	210	150	p30	SFa21-12	1	3
HMI 2500 W/DXS	31.5	355	290	p30	SFa21	1	3
HMI 4000 W/DXS	36	405	340	p15	SFa21	1	3
HMI 6000 W/DXS	54	450		p15	S25.5	1	4
HMI 12000 W/DXS	64	470		p15	S30	1	5
HMI 18000 W/DXS	70	500		p15	S30	1	6
HMI 24000 W/DXS	83	500		p15	S30	1	7

See safety advice no. 4 on page 92

Lok-it!®













Product name	Product number		W	V	Α	t [h]	lm	K
Lok-it!®								
Lok-it! HTI 400 W/60/P28	4008321	605481	400	67	6	750	30000	6000
Lok-it! HTI 700 W/60/P28	4052899	9179790	700	60	11.6	750	50000	6000
Lok-it! HTI 700 W/75/P28	4008321	510549	700	100	11	750	50000	7500
Lok-it! HTI 700 W/75/P50	4008321	485205	700	100	10	750	50000	7500
Lok-it! HTI 1500 W/60/P50	4008321	553416	1500	100	15	750	135000	6000
Lok-it! HTI 1500 W/60/P50 M3W	4008321818997		1500	100	15	750	130000	6000
Lok-it!® Power Series								
Lok-it! 1000/PS	4052899	9965157	1000	85	12	950	85000	6000
Lok-it! 1000/PS Blue	4052899	9965171	1000	71	14	750	70000	7500
Lok-it! 1000/PS Brilliant	4052899	9965164	1000	85	12	750	82000	5900
Lok-it! 1400/PS Brilliant	4052899	9965195	1400	90	15.5	750	120000	6000
Lok-it! 1700/PS	4052899	9965201	1700	85	20	750	135000	6000
Product				LCL				
name	Ra	d [mm]	[mm]	a [mm]				No.
name Lok-it!®	Ra	d [mm]	[mm]		<u> </u>			No.
	> 85	d [mm]	103		3.4	PGJX28	1	No. 1
Lok-it!®				a [mm]	3.4			No.
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50	> 85	17	103	ā [mm] 56	4.1	PGJX28 PGJX28 PGJX28	1	No. 1
Lok-it!	> 85 > 85	17 18	103	56 56	4.1	PGJX28 PGJX28	1 1	1 1
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50	> 85 > 85 85	17 18 18	103 112 128	56 56 65	4.1	PGJX28 PGJX28 PGJX28	1 1 1	1 1 2 1 2 2 1 2
Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28	> 85 > 85 85 > 85	17 18 18 20	103 112 128 125	56 56 65	4.1 4 4	PGJX28 PGJX28 PGJX28 PGJX28	1 1 1 1 1	No. 1 1 2 1 1
Lok-it! PTI 400 W/60/P28 Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 55 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1 1	1 1 2 1 2 2 1 2
Lok-it! PTI 400 W/60/P28 Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W	> 85 > 85 85 > 85 > 85	17 18 18 20 26	103 112 128 125 128	56 56 55 65 65	4.1 4 4 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50	1 1 1 1	1 1 2 1 2 2 1 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W Lok-it!® Power Series	> 85 > 85 85 > 85 > 85 > 85 > 85	17 18 18 20 26 26	103 112 128 125 128 128	56 56 65 65 65 65	4.1 4 4 5.8 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50 PGJX28	1 1 1 1 1 1 1	1 1 2 1 2
Lok-it!® Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W Lok-it!® Power Series Lok-it! 1000/PS	> 85 > 85 85 > 85 > 85 > 85 > 85 > 85	17 18 18 20 26 26 26	103 112 128 125 128 128	56 56 65 65 65 65 65	4.1 4 4 5.8 5.8	PGJX28 PGJX28 PGJX28 PGJX28 PGJX50 PGJX28	1 1 1 1 1 1 1 1 1 1	1 1 2 1 2 2
Lok-it!* Lok-it! HTI 400 W/60/P28 Lok-it! HTI 700 W/60/P28 Lok-it! HTI 700 W/75/P50 Lok-it! HTI 700 W/75/P28 Lok-it! HTI 1500 W/60/P50 Lok-it! HTI 1500 W/60/P50 M3W Lok-it!* Lok-	> 85 > 85 85 > 85 > 85 > 85 > 85 > 85 >	17 18 18 20 26 26 26	103 112 128 125 128 128 128	56 56 56 65 65 65 65 65	4.1 4 4 5.8 5.8 5.8 5.5	PGJX28 PGJX28 PGJX28 PGJX28 PGJX28 PGJX20 PGJX28	1 1 1 1 1 1 1	1 1 2 1 2 2 2 3 3 3 3

Product features

eXtreme Seal technology for discharge lamps

Product benefits

- Rapid relamping with bayonet lock

See safety advice no. 1 on page 92

More information about the focus product See Lok-it!® Power Series on pages 16/17

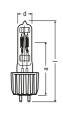


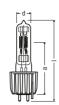
Looking for a solution for smaller moving heads?

See SIRIUS HRI® on page 51

HPL®









Product name	Product number	W	V	t [h]	lm	K	d [mm]
HPL 575/230	4050300461816	575	230	400	14900	3200	19
HPL 575/240	4050300461830	575	240	400	14900	3200	19
HPL 575/230/X	4008321090102	575	230	1500	11780	3050	19
HPL 575/240/X	4008321174444	575	240	1500	11780	3050	19
HPL 750/230	4050300654201	750	230	300	19750	3200	19
HPL 750/240/X	4050300654225	750	240	300	19750	3200	19
HPL 750/230/X	4008321090324	750	230	1500	15600	3050	19
HPL 750/240/X	4008321174468	750	240	1500	15600	3050	19
Product name	[mm]	LCL a [mm]	h h			4	Q No.
HPL 575/230	104	60.3	9.5*11.51)	Any	2 pins	12	1
HPL 575/240	104	60.3	9.5*11.51)	Any	2 pins	12	1
HPL 575/230/X	104	60.3	14.5*11 1)	Any	2 pins	12	1
HPL 575/240/X	104	60.3	14.0*141)	Any	2 pins	12	1
HPL 750/230	101	60.3	7.5*11.5 ¹⁾	Any	2 pins	12	2
HPL 750/240/X	101	60.3	7.5*11.5 ¹⁾	Any	2 pins	12	2
HPL 750/230/X	104	60.3	15.5*11 1)	Any	2 pins	12	2
HPI 750/240/X	101	60.3	15 5*11 ¹⁾	Anv	2 nins	12	2

¹⁾ Type of filament 6-C8

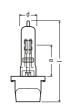
Product benefits

High-performance lampsOptimum use of the generated light in the spotlight

See safety advice no. 5 on page 92

QXL







Product name	Product number	W	t[h]	lm	K	d [mm]
QXL 750 W 77 V	4008321090218	750	1500	18000	3050	18.5
Product name	I LCL a [mm]	h			4	No.
QXL 750 W 77 V	104 38	6.5*12	Any	G9.5 1)	12	1

¹⁾ Quick exchange base

Product features

- Equipped with XS technology
- Maximum permitted base temperature: 500 °C
- Special bayonet base

Product benefits

- Tool-less lamp exchange without opening the spotlight
- Developed in cooperation with Electronic Theatre Controls (ETC)

Areas of application

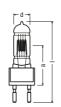
Stage and theater lighting

Halogen lamps, single-ended











Product name	Product number	ANSI	LIF	W	V	t[h]	lm	K
64743	4008321225702	FEL		1000	120	300	27500	3200
64744	4008321554833	FWP	T/19	1000	230	750	20500	3000
64744	4008321554857	FWP	T/19	1000	240	750	20500	3000
64745	4008321468611	FVA	CP/70	1000	230	200	26000	3200
64745	4008321468659	FVA	CP/70	1000	240	200	26000	3200
64747	4008321468635	FKJ	CP/71	1000	230	200	26000	3200
64747	4008321468741	FKJ	CP/71	1000	240	200	26000	3200
93734	4050300350073	FEP	CP/77	1000	240	300	23000	3200
Product name	Ø d [mm]	[mm]	LCL a [mm]	h h			3	No.
64743	20	101	60.3	11.4*24.4	Any	G9.5	12	1
64744	26	110	55	13.0*15.0	s90	GX9.5	20	2
64744	26	110	55	13.0*15.0	s90	GX9.5	20	2
64745	26	110	55	13.0*15.0	s90	GX9.5	20	2
64745	26	110	55	13.0*15.0	s90	GX9.5	20	2
64747	26	140	63.5	13.0*15.0	s90	G22	20	3
64747	26	140	63.5	13.0*15.0	s90	G22	20	3
93734	20	102	60.3	5.7*27.0	Any	2 pins	12	1

Product features

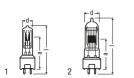
- Operation at mains voltage: 120 V, 230 V, 240 V
- Color temperature: 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)

Areas of application

- Theater and concert stages
- Professional film and TV work
- Entertainment

See safety advice no. 5 on page 92

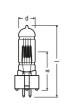
Halogen lamps, single-ended

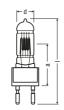




Product name	Product number	ANSI	LIF	W	V	t[h]	Im	K
64673	4052899015463	FSL	CP/81	300	230	200	7500	3100
64673	4052899015487	FSK	CP/81	300	240	200	7500	3100
64670	4008321624017	GCV	T/25	500	230	300	11000	3000
64670	4008321624031	GCV	T/25	500	240	300	11000	3000
64674	4052899015500	FRH	CP/82	500	230	200	13500	3200
64674	4052899015524	FRJ	CP/82	500	240	200	13500	3200
64680	4008321098573		A1/244	500	230	50	14500	3200
64680	4008321098597		A1/244	500	240	50	14500	3200
64716	4008321623973	GKV		600	230	250	14000	3050
64716	4008321623997	GKV		600	240	250	14000	3050
64717	4008321624215	FRL	CP/89	650	230	150	16250	3200
64717	4008321624239	FRM	CP/89	650	240	150	16250	3200
64718	4008321624253	GCT	T/27	650	230	400	14500	3000
64718	4008321624277	GCT	T/27	650	240	400	14500	3000
64719	4008321638076		T/12	650	230	750	12000	3000
64720	4008321638090		CP/23	650	230	100	16800	3200
64721	4008321638113	FKH	CP/39	650	230	100	16800	3200
64678	4008321624055			800	230	250	20000	3200









Product name	d [mm]	[mm]	LCL a [mm]	h h			4	No.
64673	18	80	46.5	6.5*13	Any	GY9.5	12	1
64673	18	80	46.5	6.5*13	Any	GY9.5	12	1
64670	23	90	46.5	11.0*11.0	s90	GY9.5	12	2
64670	23	90	46.5	11.0*11.0	s90	GY9.5	12	2
64674	18	80	46.5	8.0*18	Any	GY9.5	12	1
64674	18	80	46.5	8.0*18	Any	GY9.5	12	1
64680	22	75	36.5	10.0*10.01)	Any	GY9.5	12	2
64680	22	75	36.5	10.0*10.0 ¹⁾	Any	GY9.5	12	2
64716	19	101	60.5	9.0*13.0	s90	G9.5	12	3
64716	19	101	60.5	9.0*13.0	s90	G9.5	12	3
64717	23	90	46.5	26.0*33.0	s90	GY9.5	12	2
64717	23	90	46.5	26.0*33.0	s90	GY9.5	12	2
64718	23	90	46.5	10.0*10.0	s90	GY9.5	12	2
64718	23	90	46.5	10.0*10.0	s90	GY9.5	12	2
64719	26	110	55	13.0*11.0	s90	GX9.5	20	4
64720	26	110	55	13.0*17.0 1)	s90	GX9.5	20	4
64721	26	140	63.5	13.0*17.0 1)	s90	G22	20	5
64678	19	101	60.5	9.0*13.0	s90	G9.5	12	3

1) With monoplane filament

Product features

- Operation at mains voltage: 230 V, 240 V
- Color temperature: 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)

Areas of application

- Theater and concert stages
- Professional film and TV work
- Entertainment

See safety advice no. 5 on page 92

Halogen lamps, single-ended











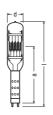
Product name	Product number	ANSI	LIF	W	V	t [h]	Im	K
64752	4008321624475	FWS	T/29	1200	230	400	28600	3000
64752	4008321624499	FWS	T/29	1200	240	400	28600	3000
64754	4008321624529		CP/90	1200	230	200	30000	3200
64756	4008321624550		CP/93	1200	230	200	30000	3200
93723	4008321370594		CP/110	1200	80	300	37500	3200
64777	4008321632197		CP/92	2000	230	400	52000	3200
64787	4008321653994		CP/75	2000	230	400	52000	3200
64788	4008321632173	FTM	CP/72	2000	230	400	52000	3200
64788	4008321632180	FTM	CP/72	2000	240	400	52000	3200
64789	4008321654021	FKK	CP/73	2000	230	400	52000	3200
64789	4008321654038	FKK	CP/73	2000	240	400	52000	3200
64796	4008321653987		CP/91	2500	230	400	65000	3200
64797	4052899129542			3000	230	400	82000	3200
64805	4052899129580		CP/85	5000	120	400	135000	3200
64805	4052899129566		CP/85	5000	230	400	135000	3200
64805	4052899129573		CP/85	5000	240	400	135000	3200
64815	4050300780696	ECR	CP/83	10000	230	350	285000	3200
64818	4008321792051	BCM	CP/99	20000	230	350	580000	3200













Product name	d [mm]	I [mm]	LCL a [mm]	h h			4	No.
64752	27	125	67	13.0*15.0	s90	GX9.5	20	1
64752	27	125	67	13.0*15.0	s90	GX9.5	20	1
64754	27	125	67	13.0*15.0	s90	GX9.5	20	1
64756	26	140	63.5	13.0*15.0	s90	G22	20	2
93723	22	120.7	63.5	12.7*12.7	s135	2 pins	12	3
64777	35	175	90	20.0*19.0	s90	G22	12	3
64787	35	160	75	20.0*19.0	s90	G22	12	3
64788	35	145	70	20.0*19.0	s90	GY16	12	4
64788	35	145	70	20.0*19.0	s90	GY16	12	4
64789	35	210	127	20.0*19.0	s90	G38	6	5
64789	35	210	127	20.0*19.0	s90	G38	6	5
64796	35	175	90	20.0*19.0	s90	G22	12	3
64797	45	210	127	33.0*35.0	s90	G38	6	6
64805	60	279.4	165	26.0*33.0	s90	G38	6	7
64805	60	279	165	26.0*33.0	s90	G38	6	7
64805	61	279	165	26.0*33.0	s90	G38	6	7
64815	80	400	254	60.0*35.0	s45	G38	6	8
64818	100	550	354	67.0*50.0	s45	G38	4	9

Product features

- Operation at mains voltage: 80 V, 120 V, 230 V, 240 V
- Color temperature: 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)

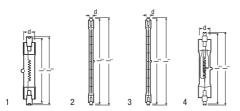
Areas of application

- Theater and concert stages
- Professional film and TV work
- Entertainment

See safety advice no. 5 on page 92

Halogen lamps, double-ended







Product name	Product number		ANSI	LIF	W	٧	t [h]	lm
64571	40503000	14180	DXX	P2/13	800	230	75	21000
64571	40503002	83388	DXX	P2/13	800	240250	75	21000
64572	40083213	25181		P2/35	1000	230	150	25000
64579	40503000	14104	FDG		1000	115120	15	33000
64580	40503000	06888		P1/12	1000	230	15	35000
64580	40503002	83173		P1/12	1000	240	15	35000
64583	40503002	49094		P2/20	1000	230	300	27000
64583	40503004	11477		P2/20	1000	240	300	27000
64741	40503002	09333	EKM	P2/7	1000	230	200	25000
64741	40503002	83197	EKM	P2/7	1000	240	200	25000
64751	40503002	14641		P2/12	1250	230	200	33500
64751	40503002	83357		P2/12	1250	240	200	33500
64781	40503002	29997	FEX	P2/27	2000	230	300	50000
64781	40503002	83500	FEX	P2/27	2000	240	300	50000
Product name	K	d [mm]	[mm]	[mm]			4	Q No.
64571	3200	17	75	78	Horizontal 1)	R7s	50	1
64571	3200	17	75	78	Horizontal 1)	R7s	50	1
64572	3200	18	94	88	Any	R7s	50	1
64579	3200	12	122	122	p15 ¹⁾	R7s	12	2
64580	3400	12	127	122	p15	R7s	12	2
64580	3400	12	127	122	p15	R7s	12	2
64583	3200	10	114	114	Any	R7s	12	2
64583	3200	12	114	114	Any	R7s	12	2
64741	3200	12	186	186	s180	R7s	12	3
64741	3200	12	186	186	s180	R7s	12	3
64751	3200	12	186	186	p15	R7s	12	3
64751	3200	12	186	186	p15	R7s	12	3
64781	3200	30	138	139	p15	RX7s	12	4

138

1) Burning position preferably horizontal, vertical possible for a short time

Product features

64781

- Operation at mains voltage: 120 V, 230 V, 240 V
- Color temperature: 3,200 K (for professional film and TV work)

3200

Color temperature: 3,400 K (for maximum luminous efficacy)

Areas of application

139

- Theater and concert stages

p15

RX7s

12

- Professional film and TV work

See safety advice no. 5 on page 92

Halogen lamps, medium/high voltage, single-ended



Κ



Product

name



Product

number



ANSI



LIF

W



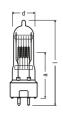
lm

t[h]

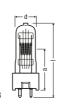
namo	Halliboi						411		
64502	405289908	0751			150	230	50	4000	3200
64502	405289908	0775			150	240	50	4000	3200
64502C	405289936	3250			150	230	50	4000	3200
64502C	405289936	3236			150	240	50	4000	3200
64504	405289910	1654		A1/249	150	230	25	5150	3200
64504	405289910	1678		A1/249	150	240	25	4000	3200
64505 ¹⁾	400832174	6078			200	230	25	5100	3200
64505 ¹⁾	400832174	6092			200	240	25	5150	3200
64512 ¹⁾	400832174	6115			300	120	15	9300	3350
64514 ¹⁾	400832174	6139		CP/96	300	120	75	8100	3200
64515 ¹⁾	400832174	6153			300	230	15	9600	3300
64515 ¹⁾	400832174	6177			300	240	15	8900	3350
64516 ¹⁾	400832174	6191		CP/97	300	230	75	7400	3150
64516 ¹⁾	400832174	6214		CP/97	300	240	75	7300	3150
64540	405289915	8221	BVM		650	230	15	20000	3400
64540	405289915	8245	BVM		650	240	15	20000	3400
64575	400832109	8856	EGY		1000	230	15	33000	3400
64575	400832109	8450	EGY		1000	240	15	33000	3400
64576	400832109	9860			1000	230	75	28000	3200
Product name	d [mm]	LCL a [mm]	[mm]	h i-p-i			B 4	a	No.
64502	18 2	28	55	13.0*1.9	Any	GX6.35	В	20	1
64502	18 2	28	55	13.0*1.9	Any	GX6.35	В	20	1
64502C	18 2	28	55	13.0*1.9	Any	GX6.35	В	20	1
64502C	18 2	28	55	13.0*1.9	Any	GX6.35	В	20	1
64504	18 4	40	62	9.6*12.5	s90	G6.35	В	20	2
64504	18 4	40	62	9.6*12.5	s90	G6.35	В	20	2
64505 ¹⁾	18.5 2	27	53	9.6*12.5	s90	GX6.35	В	20	3
64505 ¹⁾	18.5 2	27	53	9.5*12.5	s90	GX6.35	В	20	3
64512 ¹⁾	18.5	27	53	10.0*12.5	s90	GX6.35	В	20	3
64514 ¹⁾	18.5 2	27	53	10.0*12.5	p90	GX6.35	В	20	3
64515 ¹⁾	18.5 2	27	53	9.8*12.5	s90	GX6.35	В	20	3
64515 ¹⁾	18.5 2	27	53	10.0*12.5	s90	GX6.35	В	20	3
64516 ¹⁾	18.5 2	27	53	9.8*12.5	s90	GX6.35	В	20	3
64516 ¹⁾	18.5 2	27	53	9.7*12.5	s90	GX6.35	В	20	3
64540	24 2	28	57.5	14.0*15	Any	GX6.35	В	12	4
64540	24 2	28	57.5	14.0*15	Any	GX6.35	В	12	4
64575	24 3	38	67.5	14.0*14	Any	GX6.35	В	12	4
64575	24 3	38	67.5	14.0*14	Any	GX6.35	В	12	4
64576	24	45	67.5	14.0*14		GX6.35	В	12	4
1) With quartz pinch technology									

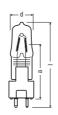
Halogen lamps, medium/high voltage, single-ended













Product name	Product number		ANSI	ЦF	W	٧	t[h]	lm	K
93591 1)	4050300	481555	FSY		400	240	75	80003)	3200
93592 1)	4050300	481531	FSX		400	230	75	80003)	3200
64662	4052899	015449			300	230	2000	5000	2900
64662	4052899	144248		M/38	300	240	2000	5000	2900
64672	4008321	098559			500	230	2000	8500	2900
64672	4008321	098535			500	240	2000	8500	2900
64686	4052899	158269	DYR		650	230	50	16500	3200
64686	4052899	158283	DYR		650	240	50	16500	3200
Product name	d [mm]	LCL a [mm]	[mm]	i-p-i i			B 4	4	No.
93591 1)	20	36.5	77	10.7*12.2	s90	GY9.5	С	24	1
93592 1)	20	36.5	77	10.7*12.2	s90	GY9.5	С	24	1
64662	15	46.5	80	9.0*11	Any	GY9.5	D	12	2
64662	17.5	46.5	80	9.0*11	Any	GY9.5	D	12	2
64672	22	46.5	85	12.0*11	Any	GY9.5	D	12	3
64672	22	46.5	85	12.0*11	Any	GY9.5	D	12	3
64686	21	36.5	64	10.0*10 2)	Any	GY9.5	В	12	4
64686	21	36.5	64	10.0*10 ²⁾	Anv	GY9.5	В	12	4

Product features

- Operation at mains voltage: 230 V, 240 V
- Color temperature: 2,900 K, 3,000 K (with longer lifespan)
- Color temperature: 3,200 K (for professional film and TV work)
- Color temperature: 3,400 K (for maximum luminous efficacy)

Areas of application

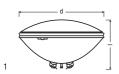
- Stage and theater lighting
- Professional film and TV work

Available on request
 With monoplane filament
 With internal reflector

PAR56









Product name	Product number	W	V	t [h]	cd	
PAR56 WFL	4008321362209	300	12	1200	12000	38/20
Product name	⊘ d [mm]	[mm]			a	Q No.
PAR56 WFL	178	127	hs30 1)	not relevant	6	1

1) Do not tilt perpendicular to the filament

See safety advice no. 6 on page 92

STUDIOLINE®









Product name	Product number	W	d [mm]	[mm]	t[h]	lm	K		a	No.
STUDIOLINE 55 W/3200 K	4050300575292	55	535	18	80001)	3800	3200	2G11	10	1
STUDIOLINE 55 W/5600 K	4050300575278	55	535	18	80001)	3800	5600	2G11	10	1

1) Failure rate 2 % the first 8,000 h; this statement must be restricted only to attributable lamp faults

Product features

- Special phosphor combination

Product benefits

 Can be used with halogen or HMI® lamps without any problems

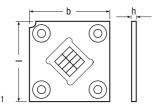
Areas of application

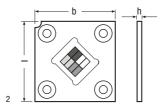
- Stage and theater lighting
- Film shooting
- Matched to use with electronic cameras

SplitStar® S32











Product name	Product number	W	Current per channel (max.) [A]	K	cd/ /mm	lm	b [mm]	[mm]	t h
SplitStar S32 CW	4052899388024	300	5	6200	140 ¹⁾	200001)	25.4	25.4	2.53
SplitStar S32 RGBW	tbd	277	red 4 green 5 blue 5 white 5	red 638 nm true green 524 nm deep blue 446 nm white 6200 K	701)	red 1450 ¹⁾³⁾ green 2825 ¹⁾³⁾ blue 2100 ¹⁾³⁾ white 5000 ¹⁾³⁾	25.4	25.4	2.53
SplitStar S32 RGBA	tbd	180	converted amber 3 converted green 5 red 4 blue 5	2700–7000	701)	10000 1)3)	25.4	25.4	2.53

Product name	Number of channels	Ra	Temperature control	Thermal resistance R _{th} (module) [K/W]	Operating temperature [°C]	Viewing angle [°]	Emitting area [mm²]	4	No.
SplitStar S32 CW	2	70	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	1
SplitStar S32 RGBW	4	-	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	2
SplitStar S32 RGBA	4	≤93	NTC	0.054)	-251202)	180	6.9 x 6.7	18	2

Pulse mode operation
 NTC reading
 Not Planckian locus
 NTC to backplane

Product features

- Up to 20,000 lm (CW)1)
- Up to 140 cd/mm² (CW) 1)
- Scalable design
- LED chips are wired in series circuits
- Electrically insulated
- Tunable white color temperature with high CRI from 2,700 to 7,000 K
- Customized versions on request

Product benefits

- Cutting-edge performance enables new generation of LED fixtures with superior light output
- Very high luminance, perfect for beam and spot lights
- Chips can be driven with standard voltage and current levels 5 A max. (SELV)
- Module is electrically insulated and can be mounted directly onto heat sink

Areas of application

- Entertainment
- Architectural lighting
- Theater lighting
- Professional lighting

See safety advice no. 7 on page 92

More information about the focus product

See SplitStar® S32 on pages 20/21

Breathing life into buildings – day and night Architectural lighting

The challenge with architectural lighting is to create intense colored effects over large areas and in harsh operating conditions. OSRAM meets this challenge with light sources that provide optimum thermal and mechanical stability, maximum energy efficiency and long service life.

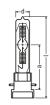
© Ralph@Larmann.com, Gert Hofís Vilnius European Cultural Capital 2009 Event

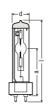


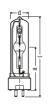
Lok-it!® and 4ArXS HSD®

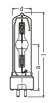














Product name	Product number	-	W	V	Α	t [h]	lm	K
Lok-it!®								
Lok-it! HSD 300 W/80/P28	400832	1644831	300	95	3.2	2000	27000	8000
4ArXS HSD®								
4ArXS HSD 150 W/70 1)	400832	1625847	150	97	1.8	3000 2)	12000	7000
4ArXS HSD 250 W/60	400832	1625762	250	90	3.3	2000	17000	6000
4ArXS HSD 250 W/80	400832	1625786	250	95	3.2	3000	17000	8000
4ArXS HSD 575 W/72	400832	1625809	575	88	7.4	3000	45000	7200
Product name	Ra	d [mm]	[mm]	LCL a [mm]	+		7	No.
Lok-it!®								
Lok-it! HSD 300 W/80/P28	> 85	23	121	67	5	PGJX28	1	1
4ArXS HSD®								
4ArXS HSD 150 W/70 1)	-	20	105	56	hs30	G12	10	2
4ArXS HSD 250 W/60	-	23	108	55	hs30	GY9.5	10	3
4ArXS HSD 250 W/80	-	23	108	55	hs30	GY9.5	10	3
4ArXS HSD 575 W/72	-	30	135	65	hs30	GX9.5	10	4

¹⁾ Outer bulb with UV filter 2) Failure rate 2 % the first 3,000 h; this statement must be restricted only to attributable lamp faults

Product features

- eXtreme Seal technology for discharge lamps

Product benefits

Lok-it!®:

Rapid relamping with bayonet lock

4ArXS HSD®:

- Especially long lifespan

Areas of application

- Architectural lighting
- Entertainment

See safety advice no. 1 on page 92



Looking for a solution for smaller moving heads?

See SIRIUS HRI® on page 51

Xstage[®]







1	2	d P	_~

Product number		W	V	Α	l · A ·l	t [h]	Im
4008321	288820	2000	23	90	70100	1000	80000
4008321	288837	3000	30	100	70110	1000	140000
4008321	288844	4000	30	130	80135	1000	150000
4008321	288851	7000	40	160	110165	1000	330000
d [mm]	[mm]	[mm]	LCL a [mm]	\$	<u> </u>	4	No.
47	300	262	120	SFaX27-9.5	SFc28-27	1	1
55	300	262	120	SFaX27-9.5	SFc28-27	1	1
60	315	277	120	SFaX27-9.5	SFc28-27	1	2
70	400	362	162.5	SFaX27-9.5	SFc28-27	1	2
	number 4008321 4008321 4008321 4008321 4008321 47 55 60	4008321288820 4008321288837 4008321288844 4008321288851 Quantification of the control of the co	number W 4008321288820 2000 4008321288837 3000 4008321288844 4000 4008321288851 7000 Interpretation Interpretation 47 300 262 55 300 262 60 315 277	number W V 4008321288820 2000 23 4008321288837 3000 30 4008321288844 4000 30 4008321288851 7000 40 Interpretation Interpretation Interpretation 47 300 262 120 55 300 262 120 60 315 277 120	number W V A 4008321288820 2000 23 90 4008321288837 3000 30 100 4008321288844 4000 30 130 4008321288851 7000 40 160 Indicated the properties of the	Number W V A A 4008321288820 2000 23 90 70100 4008321288837 3000 30 100 70110 4008321288844 4000 30 130 80135 4008321288851 7000 40 160 110165 Image: Company of the light of the	number W V A A Initial 4008321288820 2000 23 90 70100 1000 4008321288837 3000 30 100 70110 1000 4008321288844 4000 30 130 80135 1000 4008321288851 7000 40 160 110165 1000 Inimal Immal Immal Immal Immal Immal Immal Immal 47 300 262 120 SFaX27-9.5 SFc28-27 1 55 300 262 120 SFaX27-9.5 SFc28-27 1 60 315 277 120 SFaX27-9.5 SFc28-27 1

Product features

- Color temperature: approx. 6,000 K (daylight)
- Dimmable
- Hot restart capability

Product benefits

- Higher luminance thanks to the shorter arc
- Optimized base for better stability
- Optimized compact design

Areas of application

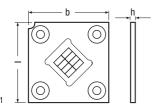
 Xenon short-arc lamps for event and architectural lighting

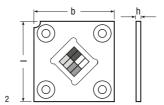
See safety advice no. 3 on page 92

SplitStar® S32











Product name	Product number	W	Current per channel (max.) [A]	K	cd/ /mm	lm	b [mm]	[mm]	h [mm]
SplitStar S32 CW	4052899388024	300	5	6200	140 ¹⁾	200001)	25.4	25.4	2.53
SplitStar S32 RGBW	tbd	277	red 4 green 5 blue 5 white 5	red 638 nm true green 524 nm deep blue 446 nm white 6200 K	701)	red 1450 ¹⁾³⁾ green 2825 ¹⁾³⁾ blue 2100 ¹⁾³⁾ white 5000 ¹⁾³⁾	25.4	25.4	2.53
SplitStar S32 RGBA	tbd	180	converted amber 3 converted green 5 red 4 blue 5	2700–7000	701)	10000 1)3)	25.4	25.4	2.53

Product name	Number of channels	Ra	Temperature control	Thermal resistance R _{th} (module) [K/W]	Operating temperature [°C]	Viewing angle [°]	Emitting area [mm²]	4	No.
SplitStar S32 CW	2	70	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	1
SplitStar S32 RGBW	4	-	NTC	0.054)	-25120 ²⁾	180	6.9 x 6.7	18	2
SplitStar S32 RGBA	4	≤93	NTC	0.054)	-251202)	180	6.9 x 6.7	18	2

Pulse mode operation
 NTC reading
 Not Planckian locus
 NTC to backplane

Product features

- Up to 20,000 lm (CW)¹⁾
- Up to 140 cd/mm² (CW) 1)
- Scalable design
- LED chips are wired in series circuits
- Electrically insulated
- Tunable white color temperature with high CRI from 2,700 to 7,000 K
- Customized versions on request

Product benefits

- Cutting-edge performance enables new generation of LED fixtures with superior light output
- Very high luminance, perfect for beam and spot lights
- Chips can be driven with standard voltage and current levels 5 A max. (SELV)
- Module is electrically insulated and can be mounted directly onto heat sink

Areas of application

- Entertainment
- Architectural lighting
- Theater lighting
- Professional lighting

See safety advice no. 7 on page 92

More information about the focus product

See SplitStar® S32 on pages 20/21

Safety advices

- 1 Because of their high luminance, UV radiation and high internal pressure during operation, the lamps may only be operated in enclosed lamp casings specially constructed for the purpose. Appropriate filters must ensure that UV radiation is reduced to a safe level. Mercury is released if the lamp breaks. Information on safety and handling can be found in the leaflet included with the lamp or in the operating instructions.
- 2 HSR® lamps are not suitable for hot restarts. Hot restarts may lead to lamp shattering.
- 3 Because of their high luminance, UV radiation and high internal pressure in both the hot and cold state, the lamps must only be operated in enclosed lamp casings specially constructed for the purpose. Always use the supplied protective jackets when handling these lamps. They may only be used as open lamps if appropriate safety measures are taken. More information can be found in the leaflet included with the lamp or the operating instructions.
- 4 Because of their high luminance, UV radiation (does not apply to HMI® UVS) 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 UV radiation of standard HMI® lamps is reduced to a safe level. Mercury is released if the lamp breaks. Information on safety and

- handling can be found in the leaflet included with the lamp or in the operating instructions.
- 5 To prevent personal injury or damage to property, halogen lamps may only be operated in suitable luminaires designed with suitable mechanisms (protective shields, grids etc.) to ensure that in the event of a lamp bursting no parts/shards can escape and that during operation no ultraviolet radiation can escape. The lamps emanate intense heat.
- 6 To prevent personal injury or damage to property, halogen lamps may only be operated in suitable luminaires designed with suitable mechanisms (cover panel etc.) to ensure that in the event of a lamp bursting no parts/shards can escape and that during operation no ultraviolet radiation can escape. Because of the heat produced, only heat-resistant lamp connections (holders) may be used.
- 7 SplitStar® S32 LED modules are intended for use by qualified personnel only. They emit possibly hazardous optical radiation. Observe precautions for handling electrostatic-sensitive devices. Do not touch the LED surface. To prevent personal injury or damage to property, SplitStar® S32 may only be operated with a sufficient cooling system and in compliance with maximum electrical specifications.

Symbols

Symbols for all chapters



Glossary of the most important lighting terms

As with any technical or scientific discipline, lighting technology has its own special terms and concepts for defining the characteristics of lamps and fixtures and for standardizing the units of measurement.

The most important terms are described here.

Luminous flux Φ

Unit of measurement: lumen [lm]

Luminous flux Φ is all the radiated power emitted by a light source evaluated with the spectral sensitivity of the eye and the photometric radiation equivalent k...

Luminous intensity I

Unit of measurement: candela [cd]

Generally speaking, a light source emits its luminous flux Φ in different directions and at different intensities.

Luminous intensity is the luminous flux radiated in a particular direction (solid angle Ω).

Illuminance E

Unit of measurement: lux [lx]

Illuminance E is the ratio between the luminous flux and the area being illuminated.

An illuminance of 1 lx occurs when a luminous flux of 1 lm is evenly distributed over an area of 1 m².

Luminance L

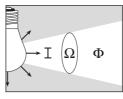
Unit of measurement: candela per square meter [cd/m²] The luminance L of a light source or an illuminated area is a measure of the impression of brightness.

Luminous efficacy n

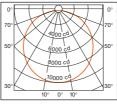
Unit of measurement: lumen per watt [lm/W] Luminous efficacy η indicates the efficiency with which the electrical power consumed is converted into light.

Light and radiation

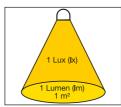
Light is taken to mean the electromagnetic radiation that the human eye perceives as brightness, in other words that part of the spectrum that can be seen. This is the radiation between 380 and 780 nm, a tiny fraction of the known spectrum of electromagnetic radiation.



Luminous intensity I is a measure of the luminous flux Φ emitted in a solid angle Ω .

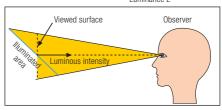


Polar diagram



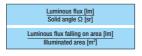
Illuminance E

Luminance L

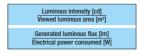


The most important photometric formulae:









Color temperature

Unit of measurement: Kelvin [K]

The color temperature of a light source is defined in comparison with a "black body radiator" and plotted on what is known as the "Planckian curve". The higher the temperature of this "black body radiator", the greater the blue component in the spectrum and the smaller the red component. An incandescent lamp with a warm white light, for example, has a color temperature of 2,700 K, whereas a daylight fluorescent lamp has a color temperature of 6,000 K.



The light color of a lamp can be neatly defined in terms of color temperature. There are three main categories here:

Warm White < 3,300 K Cool White 3.300-5.300 K

Daylight > 5.300 K

Despite having the same light color, lamps may have very different color rendering properties owing to the spectral composition of their light.

Color rendering

As a rule, artificial light should enable the human eye to perceive colors correctly, as it would in natural daylight. Obviously, this depends to some extent on the location and purpose for which light is required.

The criterion here is the color rendering property of a light source. This is expressed as a "general color rendering index" (R_a) .

The color rendering index is a measure of the correspondence between the color of an object (its "self-luminous color") and its appearance under a reference light source. To determine the $\rm R_{\rm a}$ values, eight test colors defined in accordance with DIN 6169 are illuminated with the reference light source and the light source under test. The smaller the discrepancy, the better the color rendering property of the lamp being tested.

A light source with an $\rm R_a$ value of 100 displays all colors exactly as they appear under the reference light source. The lower the $\rm R_a$ value, the worse the colors are rendered.

Luminaire efficiency

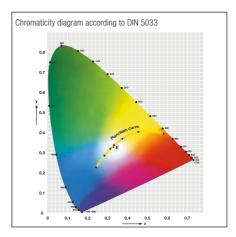
Luminaire efficiency (also known as light output ratio) is an important criterion in gauging the energy efficiency of a luminaire. This is the ratio between the luminous flux emitted by the luminaire and the luminous flux of the lamp (or lamps) installed in the luminaire.

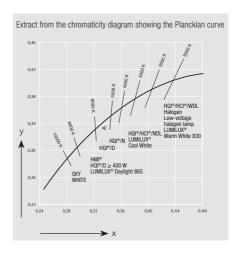
Average life

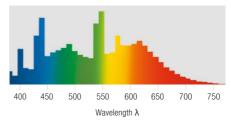
The average life of a lamp is an average of the lives of individual lamps operated under standard conditions (50 % failure = average rated life).

Service life

Service life is a simple practical measure of the economical life of a lamp. It is the number of hours of operation after which the system luminous flux (i.e. the product of the relative luminous flux and the relative proportion of lamps still in operation) is around 80 % of the initial value.

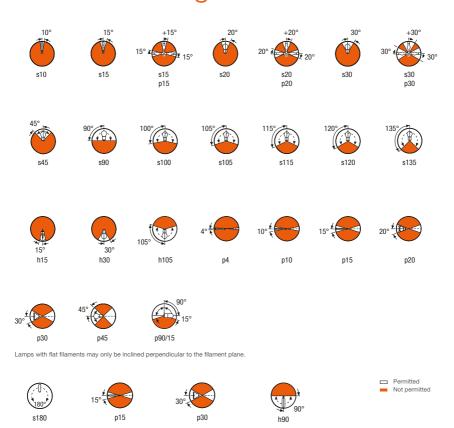






Spectrum of a BIOLUX® fluorescent lamp.
The radiation is very evenly distributed over the entire visible range.

Burning positions schematic diagram



The lamps must be installed only in the burning positions specified. Any other burning positions may lead to premature failure of the lamps. The lamps must be installed unity in the durning positions specified by these:

s = standing (base down)
h = hanging (base up)
p = horizontal (base at the side)
Permitted angle: The number after the letter for the main burning position indicates the permitted angle of deviation from the main burning position in degrees.

Disposing of your lamps and luminaires

EU directive 2002/96/EC WEEE and its revision 2012/19 EU relate, among other things, to luminaires (with the exception of luminaires in households), fluorescent lamps, compact fluorescent lamps, discharge lamps including high-pressure sodium lamps, metal halide lamps and low-pressure sodium lamps. Since the start of 2010, LED lamps that can be operated in standardized holders are also affected by the directive, e.g. LED retrofit lamps or LED tubes. Starters, control gears and light-emitting diodes are classed as luminaire components and as such are part of the luminaire disposal process.

All OSRAM products that need to be disposed of under the WEEE directive are labeled with the symbol shown here.



Incandescent lamps and tungsten halogen lamps do not contain any substances that are harmful to the environment and can be thrown away with household waste.

In some countries, all manufacturers must register with their relevant national authority. Products from nonregistered manufacturers may no longer be marketed.

In Germany, OSRAM is registered as a manufacturer in the "Elektro-Altgeräte-Register" [Old Electrical Equipment Register] (EAR) as number **DE 71568000**.

In addition, there are individual regulations governing the disposal of lamps and luminaires in the other member states of the EU and also in Norway and Switzerland. For more information, please contact the local OSRAM company.

The primary objectives of the WEEE directive are to reduce the load on the environment, safeguard valuable resources and protect the environment and public health.

All consumers (commercial and domestic) are obliged to return old lamps for separate disposal. Collection points have been set up for this. Consumers in Germany do not have to sort the old lamps by manufacturer or by product age. Lamps from private households and businesses (in volumes of normal household proportions) can be disposed of at local recycling centers or at Lightcycle collection points in retail shops. Large quantities of lamps can also be disposed of via the Lightcycle scheme. Search for collection points in Germany: www.sammelstellensuche.de. ¹⁾

On behalf of lamp manufacturers, Lightcycle organizes the logistics processes for disposing of the lamps costeffectively and environmentally friendly, both directly and at local recycling centers. Lightcycle bundles the volume to be transported and coordinates the collection logistics. You drop off your old lamps and Lightcycle does the rest.

Disposal of luminaires from commercial applications is also handled by Lightcycle. OSRAM is a contract partner of Lightcycle. Since 2010, luminaires can be disposed of directly throughout Germany at any one of 50 Lightcycle luminaire collection points. In addition to dropping off luminaires at collection points, luminaires can also be collected from wholesalers, installers, building sites or customers. There are basically no volume restrictions on collection jobs.

For large quantities, Lightcycle can set up an individual permanent collection point. You drop off your old luminaires and Lightcycle does the rest.

The latest information for Germany can be found on the Internet at: www.osram.de/WEEE

Lightcycle: www.lightcycle.de

German Ministry for the Environment, Nature and

Reactor Safety: www.bmu.de

German Central Association of Electrical Engineering

and the Electrical Industry: www.zvei.org

Stiftung Elektro-Altgeräte Register: www.stiftung-ear.de German Environment Office: www.uba.de European Lamp Companies Federation: www.elcfed.org

RoHS directive: 2002/95/EC Greatly reduced mercury content

Since July 1, 2006, this EU directive has prohibited the use of certain hazardous substances. The mercury content in some discharge lamps has been restricted. As a company committed to the protection of the environment, OSRAM is doing more than just meeting statutory requirements. Our objective is to reduce hazardous substances such as mercury to the absolute minimum needed and to promote the development, for example, of efficient mercury-free lighting systems. Because it promotes the use of new environmentally friendly technologies and materials, we comply with the RoHS directive (Restriction of Hazardous Substances) for the benefit of the environment and health.

¹⁾ Similar websites can be found in other countries

General information – standard packs

General

All OSRAM articles are EAN-coded in their various packaging formats. The EAN numbers listed in this catalog normally relate to the smallest packaging unit unless otherwise indicated.

Technical data is in accordance with DIN (German Industrial Standards) and IEC (International Electrotechnical Commission).

Unless otherwise indicated, all lamps are designed for a mains voltage of 230 V.

Sales and shipments are based on the OSRAM Conditions of Supply and Payment valid on the contract date

Technical data and dimensions are subject to the customary small tolerances.

Subject to technical modification and availability of supplies. The information in this catalog supersedes information in previous catalogs.

® = registered trademark

Standard packs

There is a surcharge on order quantities different from the standard pack quantities listed in this catalog because standard packs have to be broken open.

There are considerable advantages in ordering original cartons/standard packs:

- Prompt delivery
- No surcharges
- Simple cost-saving handling on receipt
- No time-consuming checks when the goods arrive
- Exact contents description on each stacked carton
- No danger of mistaking one type of lamp for another
- Reduced risk of losses in transitReduced risk of breakage
- ricadeca risk of breakage

Types not listed

Available on request. Surcharge for different bases and voltages.

C € labeling

Products that fall under the scope of the European directives on low voltage (LVD), electromagnetic compatibility (EMC), the eco-design of energy-related products (ErP and RoHS and its applicable implementation measures) must carry the CE label in order to be sold in the EU. The CE label indicates compliance with the principal requirements of these directives. Of course, all OSRAM products which are under the scope of the European directive meet the requirements of the relevant European directives and therefore carry the CE label.

Notes on CE labeling:

1. CE labeling as a requirement for marketing products in Europe

The CE label is applied to the product itself or to its type plate (minimum height of the label: 5 mm). If this is not possible in certain circumstances, the label may be applied to the packaging, if any, and also to the accompanying paperwork.

The CE label is a requirement for sales within the EU and must therefore be applied before a product can be marketed. By applying the CE label to their products, manufacturers and importers are confirming that their products comply with the "basic requirements" of special European directives and ordinances and that they meet the stated objectives of the directives (electromagnetic compatibility, for example). As a rule, these "basic requirements" are met if the products were manufactured in compliance with the relevant ordinances and harmonized European standards.

2. The CE label is an administrative mark

The CE label is an administrative mark addressed to the national inspection agencies. The CE label indicates to these agencies that at the time of its marketing the labeled product complies with the European directives that apply to the product and require a CE label.

3. Neither retailers nor consumers have the right to inspect the conformity certificates of the manufacturers

The right to request and inspect conformity certificates is reserved exclusively for those market inspection agencies and customs responsible for checking that electrical and electronic products comply with statutory requirements. In Germany, these are the Bundesnetzagentur (Federal Network Agency, responsible in connection with the EMC directive), the Gewerbeaufsichtsämter (Trade Supervision Offices, responsible in connection with the low-voltage directive), the relevant authorities and the Bundesanstalt für Materialforschung und -Prüfung (Federal Agency for Material Research and Testing) as the commissioned agency (in connection with the ErP directive).

4. The CE label is not a seal of quality or an approval mark

CE labeling relates solely to compliance with the statutory "basic requirements" contained in certain directives and ordinances. It is therefore not an indicator of the quality of the product.

The product features required in the ordinances for implementing the ErP directive are verified by the manufacturers by means of type testing and confirmed with the CE label.

As an administrative label required by law, the CE label should not be confused with the approval marks (such as ENEC and VDE marks) issued by independent inspectorates. These inspectorates do not even check whether or not a product carries the CE label legitimately.

Overview by product name

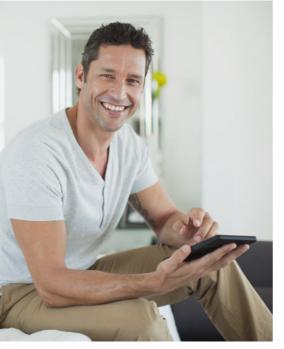
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4ArXS HSD 250 W/80	4008321625786	33, 88	64717	4008321624239	56, 76
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Best regards from Munich and Berlin, Your OSRAM Entertainment Lighting team

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