



**PHILIPS**

Special Lighting

Science & Industry

# A specialist lamp for every need

## Give your **customers exactly** what they need

As a leading lighting company for more than 120 years, we have unrivaled expertise in specialist lamps for science and industry applications. Take our very broad range of halogens, for example. Their distortion-free quartz bulb, precise filament positioning, and Color Rendering Index of 100 make them perfect for mission-critical systems. And then there are our Flexo print TL /R lamps, which have an internal reflector and produce the ideal UVA spectrum for optimal flexographic curing results.

Over the years we have found that professional end users are searching for lamps with a high performance they can rely on, offering them great value for their money. This is exactly what we offer - so you can give your customers exactly what they need. Find out more about our range and their specifications on the next pages.



# Halogen reflector

Our halogen reflector lamps offer unbeatable light quality. This in combination with their proven reliability makes them ideal for professional applications where optimum visual conditions are important, such as medical, projection and scientific illumination systems. A special designed dichroic reflector ensures backwards dissipation of approximately 75% of the generated heat. This helps the optical system remain within temperature limits. In addition, you get all the proven advantages of halogen technology such as an excellent color rendering of 100 - ensuring colors appear naturally and faithfully, as they would in natural daylight - a comfortable crisp white light and a constant high light output over the lifetime of the lamps. A special blue-filter version, capable of blocking out unwanted light above 700 nm, is available for dental curing applications.



## Benefits

- Creation of optimum visual conditions
- High performance light you can rely on during the whole lamp life
- Direct retrofit in existing applications, no re-alignment necessary when lamp is replaced

## Features

- Excellent distortion-free quartz bulb
- Excellent color rendering of 100
- Dichroic coating on glass reflector radiates about 75% of the generated heat backwards, keeping the temperature within safe limits
- Special blue-filter version available for dental curing applications



GX5.3 smooth



GX5.3 faceted



GX5.3 stippled



GZ6.35



G4/GZ4

## Dimensions (in mm) and applications areas

### GX5.3

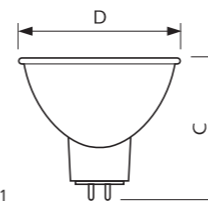


Fig. 1

Product	C (Max)	D (Max)	Applications
13163 250W GX5.3 24V 1CT	45	50	Solar simulation, Projection, Overhead projector, Fiber optics
5995 EJM 150W GX5.3 21V 1CT	44.5	50.7	Fiber optics
13164 200W GX5.3 24V 1CT	44.5	50.7	Dental hardening
14501 150W GX5.3 20V (DDL 150)	44.5	50.7	Microfilm, Microfiche
13289 50W GX5.3 13.8V 1CT	46	50	Microfilm, Microfiche
13629 150W GX5.3 21V 1CT	44.5	50.7	Fiber optics
13938XHP 50W GX5.3 22.8V 1CT	45	50	Medical surgery lighting
13186 90W GX5.3 14.5V 1CT	45	50	Microfilm, Microfiche

### GZ6.35

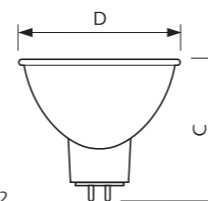


Fig. 2

Product	C (Max)	D (Max)	Applications
6834 100W GZ6.35 12V 1CT	42	50	Fiber optics, Projection
6834FO 100W GZ6.35 12V 1CT	42	50	Fiber optics
6423 150W GZ6.35 15V 1CT	42	50	Fiber optics, Projection
6423FO 150W GZ6.35 15V 1CT/10X5F	42	50	Solar simulation, Projection, Overhead projector, Fiber optics
JCR 15V 150W 5H 1CT	43	50	Fiber optics

### G4/GZ4

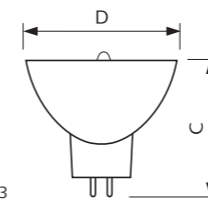


Fig. 3

Product	C (Max)	D (Max)	Applications
13528 15W GZ4 6V 1CT	42	35	Microfilm, Microfiche



# Halogen non-reflector

All our halogen non-reflector lamps incorporate a distortion-free quartz bulb and a precisely positioned filament. These ensure optimal beam performance and consistent, high light output that is maintained over their lifetime - two elements that are crucial for applications where visual conditions are important. In addition, you get all the proven advantages of halogen technology such as an excellent color rendering of 100 - ensuring colors appear naturally and faithfully, as they would in natural daylight - a comfortable crisp white light and a constant high light output over the lifetime of the lamps. Our halogen non-reflector lamps are easy to install, replace and operate. A wide range of wattages is available for a broad variety of applications, including projection systems.



## Benefits

- Creation of optimum visual conditions
- High performance light you can rely on during the whole lamp life
- Direct retrofit in existing applications, no lamp adjustment required

## Features

- Distortion-free, quartz bulb and precisely defined filament position for optimum beam performance and high light output
- Excellent color rendering of 100
- XHP version with xenon gas for maximum light output
- Flat filament available



G5.3



GY6.35



G4



G6.35

## Dimensions (in mm) and applications areas

G5.3	Product	C (Max)	D (Max)	L (Min)	L (Norm)	L (Max)	P (Min)	P (Norm)	P (Max)	Filament
	6390 30W G5.3 10.8V 1CT	44	8.5	26.75	27	27.25	1.47	1.56	1.65	1.26 X 4.1
	14531 360W G5.3 82V 1CT	57	11.5	30.8	31.8	32.8	1.47	1.56	1.65	7.0 X 4.0

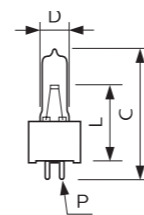


Fig. 4

**Applications:** Overhead projector, Projection, Microfilm, Microscopes, Endoscopes

GY6.35	Product	C (Max)	D (Max)	L (Min)	L (Norm)	L (Max)	P (Min)	P (Norm)	P (Max)	Filament
	7023 100W GY6.35 12V 1CT	44	11	29.75	30	30.25	1.20	1.25	1.30	4.0 X 1.0
	7724 100W GY6.35 12V 1CT	44	11	29.65	30	30.35	1.20	1.25	1.30	4.8 X 3.0
	7724I 100W GY6.35 12V 1CT	44	11	29.65	30	30.35	1.20	1.25	1.30	4.8 X 3.0

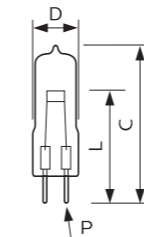


Fig. 5

**Applications:** Overhead projector, Projection, Microfilm, Microscopes, Endoscopes

G4	Product	C (Max)	D (Max)	L (Min)	L (Norm)	L (Max)	P (Min)	P (Norm)	P (Max)	Filament
	6605 10W G4 6V 1CT	31	9.0	19.25	19.5	19.75	0.65	0.7	0.75	2.8 X 0.5
	7387 10W G4 6V 1CT	31	9.3	19.25	19.5	19.75	0.65	0.7	0.75	2.0 X 0.5
	7388 20W G4 6V 1CT	31	9.0	19.25	19.5	19.75	0.65	0.7	0.75	2.3 X 0.8
	5761 30W G4 6V 1CT	31	9.3	19.25	19.5	19.75	0.65	0.7	0.75	1.8 X 1.6

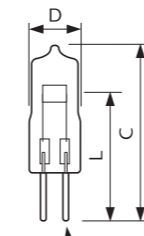


Fig. 6

**Applications:** Microscopes

G6.35	Product	C (Max)	D (Max)	L (Min)	L (Norm)	L (Max)	P (Min)	P (Norm)	P (Max)	Filament
	7748XHP 250W G6.35 24V 1CT	55	13.5	32.75	33	33.25	0.95	1	1.05	7.2 X 3.6
	7158 150W G6.35 24V 1CT	50	13.5	31.5	32	32	0.95	1	1.05	6.1 X 2.9
	7158XHP 150W G6.35 24V 1CT	50	13.5	31.5	32	32	0.95	1	1.05	6.1 X 2.9
	14623 95W G6.35 17V 1CT	50	13.5	31.5	32	32.5	0.95	1	1.05	6.1 X 2.9
	7027 50W G6.35 12V 1CT	44	11	29.75	30	30.25	0.95	1	1.05	3.2 X 1.6

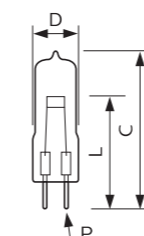


Fig. 7

**Applications:** Overhead projector, Projection, Microfilm, Microscopes, Endoscopes



# Ceramic Discharge Metal-Halide (CDM)

The perfect color rendering and long life of these Ceramic Discharge Metal-halide lamps make them ideal for fiber optics lighting in shop displays, decorative lighting systems and swimming pool illumination systems.



CDM-SA/R

### Benefits

- Low cost of ownership
- Perfect colors

### Features

- Long life
- High efficiency
- Very good Color Rendering Index of 96

## Dimensions (in mm) and applications areas

CDM-SA/R	Product	C (Max)	D (Max)	X (Norm)	Applications
	CDM-SA/R 150W/942 UNP	106	95.3	280	Fiber optics

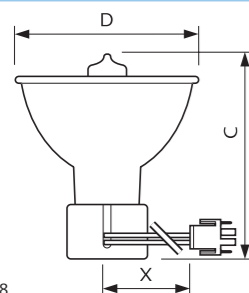


Fig. 8

# Flexo Print

Flexo print TL lamps emit almost all of their light (99.9%) in the useful UVA and visible blue wavebands – between 350 and 400 nm – and have peak intensity at 370 nm (except for the /03 version). This makes them ideal for flexo printing equipment and photopolymerization processes. In addition, the 'R' lamps in the family have an internal 200-degree reflector to further optimize the lamp's overall efficiency.

### Benefits

- Best match with photo sensitizers
- Highest output on irradiated area

### Features

- Emit radiation in the range 380-480 nm with a peak at 370 nm
- Internal reflector



TL G13

## Dimensions (in mm) and applications areas

TL G13	Product	A (Max)	B (Min)	B (Max)	C (Max)	D (Max)	Applications
	Actinic BL TL-K 40W/10-R	589.8	594.5	596.9	604	40.5	Reprography
	TL 60W/10-R 1SL	1199.4	1204.1	1206.5	1213.6	40.5	Reprography
	TL 80W/10-R SLV	1500	1504.7	1507.1	1514.2	40.5	Reprography
	TUV TL-D 95W HO SLV/25	1500	1504.7	1507.1	1514.2	40.5	Reprography
	TL 100W/10-R UV-A	1763.8	1768.5	1770.9	1778	40.5	Reprography
	TL 140W/03	1500	1504.7	1507.1	1514.2	40.5	Reprography

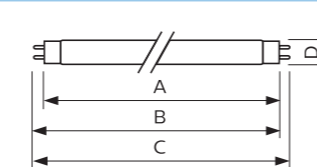


Fig. 9

# Specifications and ordering information

## Halogen reflector

Full product name	Philips code	Lamp Wattage	Cap Base	Voltage	Operating Position	Lamp Luminosity	Color Temperature	Color Rendering Index (Ra8)	Life to 50% failures	ANSI code	LIF Code	Reflector Diameter	Reflector finish	Dimmable	lamps per outer box	Dimensional drawing	Order code
13163 250W GX5.3 24V 1CT	13163	250 W	GX5.3	24 V	s105	-/-	3400 K	100	35hr	ELC	A1/259	R50	smooth	Yes	50	Fig. 1	923919720501
5995 EJM 150W GX5.3 21V 1CT	5995	150 W	GX5.3	21 V	s90	1200 lx	3400 K	100	40 hr	EJM	-/-	R50	smooth	Yes	24	Fig. 1	923921019894
13164 200W GX5.3 24V 1CT	13164	200 W	GX5.3	24 V	s90	1100 lx	3400 K	100	50 hr	EJL	A1/252	R50	smooth	Yes	24	Fig. 1	923921120594
14501 150W GX5.3 20V (DDL 150)	14501	150 W	GX5.3	20 V	s105	400 lx	3150 K	100	500 hr	DDL	-/-	R50	facetted	Yes	24	Fig. 1	923921419794
13289 50W GX5.3 13.8V 1CT	13289	50 W	GX5.3	13.8 V	any	1000 cd	-/-	100	1000 hr	-/-	-/-	R50	smooth	Yes	24	Fig. 1	923931518205
13629 150W GX5.3 21V 1CT	13629	150 W	GX5.3	21 V	s90	900 lx	3250 K	100	200 hr	EKE/ENA	-/-	R50	smooth	Yes	24	Fig. 1	924010319894
13938XHP 50W GX5.3 22.8V 1CT	13938XHP	50 W	GX5.3	22.8 V	any	380 lx	3200 K	100	750 hr	-	-/-	R50	smooth	Yes	24	Fig. 1	924059828302
13186 90W GX5.3 14.5V 1CT	13186	90 W	GX5.3	14.5 V	s105	1300 lx	3200 K	-/-	500 hr	EPX/EPV	-/-	R50	-/-	Yes	24	Fig. 1	923891214905
6834 100W GZ6.35 12V 1CT	6834	100 W	GZ6.35	12 V	S90	-/-	3400K	100	50 hr	EFP	A1/231	R50	smooth	Yes	50	Fig. 2	923916717104
6834 FO 100W GZ6.35 12V 1CT	6834 FO	100 W	GZ6.35	12 V	P90/P15	-/-	3400K	100	50 hr	EFP	A1/231	R50	-/-	Yes	50	Fig. 2	924048417104
6423 150W GZ6.35 15V 1CT	6423	150 W	GZ6.35	15 V	S105	-/-	3350K	100	50 hr	EFR	A1/232	R50	smooth	Yes	50	Fig. 2	923916818504
6423 FO 150W GZ6.35 15V 1CT/10X5F	6423 FO	150 W	GZ6.35	15 V	S105	-/-	3350K	100	50 hr	EFR	A1/232	R50	-/-	Yes	50	Fig. 2	924048218504
JCR 15V 150W 5H 1CT	-/-	150 W	GZ6.35	15 V	s90	73000 lx	3100 K	100	500 hr	-/-	-/-	R50	smooth	Yes	24	Fig. 2	924793618594
13528 15W GZ4 6V 1CT	13528	15 W	GZ4	6 V	s105	700 lx	2900 K	100	750 hr	-/-	-/-	R35	smooth	Yes	24	Fig. 3	923883810105

# Specifications and ordering information

## Halogen non-reflector

Full product name	Philips code	Lamp Wattage	Cap Base	Voltage	Operating Position	Lamp Luminosity	Color Temperature	Color Rendering Index (Ra8)	Life to 50% failures	ANSI code	LIF Code	lamps per outer box	Dimensional drawing	Order code
6390 30W G5.3 10.8V 1CT	6390	30 W	G5.3	10.8 V	any	570 lm	3050 K	100	1000 hr	DZA	-/-	24	Fig. 4	822234361803
14531 360W G5.3 82V 1CT	14531	360 W	G5.3	82 V	s90	10000 lm	3300 K	100	75 hr	EYB	-/-	24	Fig. 4	924041528894
7023 100W GY6.35 12V 1CT	7023	100 W	GY6.35	12 V	s90	3400 lm	3400 K	100	50 hr	FCR	A1/215	100	Fig. 5	923870017103
7724 100W GY6.35 12V 1CT	7724	100 W	GY6.35	12 V	s90	2650 lm	3100 K	100	2000 hr	EVA	M28	100	Fig. 5	923872517103
7724I 100W GY6.35 12V 1CT	7724I	100 W	GY6.35	12 V	s90	2650 lm	3100 K	100	2000 hr	EVA	M28	100	Fig. 5	923875717103
6605 10W G4 6V 1CT	6605	10 W	G4	6 V	any	150 lm	3000 K	100	2000 hr	-/-	M42	100	Fig. 6	923873910103
7387 10W G4 6V 1CT	7387	10 W	G4	6 V	any	200 lm	3200 K	100	100 hr	ESA	M29	100	Fig. 6	923874510103
7388 20W G4 6V 1CT	7388	20 W	G4	6 V	any	460 lm	3350 K	100	100 hr	ESB	M30	100	Fig. 6	923874610103
5761 30W G4 6V 1CT	5761	30 W	G4	6 V	any	765 lm	3200 K	100	100 hr	-/-	-/-	100	Fig. 6	923931110103
7748XHP 250W G6.35 24V 1CT	7748XHP	250 W	G6.35	24 V	s90	10000 lm	3400 K	100	50 hr	EHJ	A1/223	100	Fig. 7	924006520503
7158 150W G6.35 24V 1CT	7158	150 W	G6.35	24 V	s90	5200 lm	3400 K	100	50 hr	FCS	A1/216	100	Fig. 7	923870520503
7158XHP 150W G6.35 24V 1CT	7158XHP	150 W	G6.35	24 V	s90	6000 lm	3400 K	100	50 hr	FCS	A1/216	100	Fig. 7	924031720503
14623 95W G6.35 17V 1CT	14623	95 W	G6.35	17 V	s90	2150 lm	2900 K	100	2000 hr	-/-	-/-	100	Fig. 7	924049819103
7027 50W G6.35 12V 1CT	7027	50 W	G6.35	12 V	s90	1500 lm	3300 K	100	50 hr	BRL	A1/220	100	Fig. 7	923870217103

## CDM

Full product name	Lamp Wattage	Cap Base	Lamp Current	Operating Position	Lamp Luminosity	Color Temperature	Color Rendering Index (Ra8)	Life to 50% failures	Color code	Color Designation	Dimmable	Lamps per outer box	Dimensional drawing	Order code
CDM-SA/R 150W/942 UNP	150 W	Ceramic Cap-Cable	1.8 A	any	2550 lm	4200 K	96	6000 hr	942	Cool White	No	1	Fig. 8	928086805305

## Flexo Print

Full product name	Lamp Wattage	Cap Base	Useful life	Bulb	Color code	Color Designation	Lamp Current	Radiation Output	Dimensional drawing	Order code
Actinic BL TL-K 40W/10-R	40 W	G13	2000 hr	T12	10-R	Ultra Violet A	0.86 A	8.0 W	Fig. 9	928004101029
TL 60W/10-R 15L	60 W	G13	1000 hr	T12	10-R	Ultra Violet A	0.7 A	16 W	Fig. 9	928008401003
TL 80W/10-R SLV	80 W	G13	1000 hr	T12	10-R	Ultra Violet A	0.83 A	19 W	Fig. 9	928005901029
TL 100W/10-R UV-A	100 W	G13	1000 hr	T12	10-R	Ultra Violet A	0.97 A	26.0 W	Fig. 9	928006901029
TUV TL-D 95W HO SLV/25*	95 W	G13	8000 hr	T8	-/-	Ultra Violet C	0.62 A	22.5 W	Fig. 9	928049804006
TL 140W/03	140 W	G13	3000 hr	T12	03	Blue	1.46 A	34.2 W	Fig. 9	928012700303

\* For further details please contact our local Key Account Manager

# Legend

## Icons



Solar simulation



Projection



Overhead Projector (OHP)



Fiber optics



Dental hardening



Microfilm



Microscopes



Endoscopes



Medical surgery lighting

## Operating Position



s105



s90



p90/p15



any



© 2019 Signify Holding. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.

[www.philips.com/speciallighting](http://www.philips.com/speciallighting)  
322263573174 \* OCT 2024