



Lamps & Lighting Electronics Catalogue

PHILIPS



See what light can do

Philips prides itself for being at the forefront of technology and innovation. As the world leader in lighting we continue to expand the depth and scope of our range of lighting solutions to help customers realise their creative ambitions in a project or business environment.

With this in mind, the book you are about to read and use has also been designed around our customers to help make the right lighting choice. We invite you to have a look at the following pages to see how we are applying our expertise to inspire you.

Whether you are looking to 'Be Inspired' by light, or 'Be Informed' on technical specification information, we present to you new and exciting innovations applied in many different applications in a simple and accessible way.

We believe light is potential – light is possibility, and we are bringing those possibilities to life.

Fluorescent Lamps

TL5

MASTER TL5 High Efficiency Xtra Eco



The ideal combination of extra-long life and highest efficiency

TL5 High Efficiency Xtra Eco lamp (tube diameter 16 mm) provides the ideal combination of extra-long life and extra energy savings via simple lamp-for-lamp replacement of TL5 HE lamps, without any compromise on the high lighting quality.

Product Features

- High lamp efficacies up to 114 lm/W
- Up to 10% power reduction and double the lamp life compared to standard MASTER TL5 HE

Product Benefits

- The longer product lifetime lowers maintenance costs and facilitates the change from spot to group replacement, while at the same time reducing waste and disposal cost.

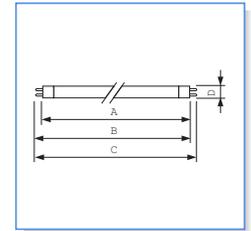
- Up to 10% energy saving
- The same quality of light as from MASTER TL5 HE lamps

Application

- All current TL5 HE applications, e. g. offices, schools, supermarkets, industry

Warnings and Safety

- Power reduction and energy savings are only achieved with current-controlled gear (N. B. Operation with power-controlled gear will result in more light output instead of reduced power and energy use).



Dim. no.	A		B		C		D	
	max.	min.	max.	max.	max.	max.		
1	549	553.7	556.1	563.2	17			
2	1149	1153.7	1156.1	1163.2	17			
3	1449	1453.7	1456.1	1463.2	17			

MASTER TL5 HE Xtra Eco G5

Wattage/Colour Code	Colour Rendering Index	Colour Temperature		Luminous Flux EL 25°C, Rated	Lum Efficacy Rated HF 35°C	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Dim. no.	Packing type/Packing configuration		National Order Code	Ordering number 8718291...	
	(Ra)	(K)		(lm)	(lm/W)	(h)	(h)						
13W/830	85	3,000	A	1,150	104	30,000	45,000	1	ISL / 40	40	13830TL5ECOXTTRA	66940100	yes
13W/840	85	4,000	A	1,150	104	30,000	45,000	1	ISL / 40	40	13840TL5ECOXTTRA	66942500	yes
25W/830	85	3,000	A	2,450	112	30,000	45,000	2	ISL / 40	40	25830TL5ECOXTTRA	66944900	yes
25W/840	85	4,000	A	2,450	112	30,000	45,000	2	ISL / 40	40	25840TL5ECOXTTRA	66946300	yes
32W/830	85	3,000	A	3,100	111	30,000	45,000	3	ISL / 40	40	32830TL5ECOXTTRA	66948700	yes
32W/840	85	4,000	A	3,100	111	30,000	45,000	3	ISL / 40	40	32840TL5ECOXTTRA	66950000	yes

MASTER TL5 High Efficiency Eco



The world's most efficient fluorescent lighting

This extremely efficient TL5 lamp (tube diameter 16 mm) saves considerable energy by simple lamp-for-lamp replacement. The TL5 HE Eco lamp offers excellent lumen maintenance and colour rendering. Application areas vary from offices and industry to schools and retail environments.

Product Features

- High lamp efficacies up to 114 lm/W
- Up to 10% power reduction in comparison with standard MASTER TL5 HE lamps
- Fluorescent Super 80 light quality

Product Benefits

- Up to 10% energy saving with simply changing the lamp
- The same quality of light as compared with MASTER TL5 HE lamps
- All benefits of regular TL5 lamps

Environment

- Best environmental choice because of highest available energy efficiency for fluorescent lighting
- Less material, packaging, weight, transport and recycling volume due to smallest product dimensions
- This product range is RoHS compliant
- This product range is covered by WEEE

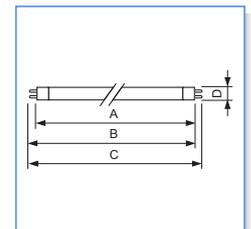
Application

- Ideally suited for recessed, surface-mounted and suspended luminaires e. g. in offices, shops, schools, public buildings and industry (low ceiling), wherever high-quality, energy-efficient lighting is required

Warnings and Safety

- Energy reduction is only achieved with current-controlled gear

- The lamps operate perfectly with power-controlled gear, but in that case give more light output instead of using less energy
- Depending on the technical design of the ballast the increase of light output can be up to 10% with a fully power-controlled ballast



Dim. no.	A		B		C		D	
	max.	min.	max.	max.	max.	max.		
1	549	553.7	556.1	563.2	17			
2	1149	1153.7	1156.1	1163.2	17			
3	1449	1453.7	1456.1	1463.2	17			

MASTER TL5 HE Eco G5

Wattage/Colour Code	Colour Rendering Index	Colour Temperature		Luminous Flux EL 25°C, Rated	Lum Efficacy Rated HF 35°C	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Dim. no.	Packing type/Packing configuration		National Order Code	Ordering number 8727900...	
	(Ra)	(K)		(lm)	(lm/W)	(h)	(h)						
13=14W/840	85	4,000	A	1,150	108	21,000	25,000	1	UNP / 40	40	13840TL5ECO	88083000	yes
25=28W/840	85	4,000	A	2,600	114	21,000	25,000	2	UNP / 40	40	25840TL5ECO	82589300	yes
32=35W/840	85	4,000	A	3,100	114	21,000	25,000	3	UNP / 40	40	32840TL5ECO	82593000	yes

MASTER TL5 High Output EcoPlus



The ultimate step in energy saving with TL5 High Output. TL5 High Output EcoPlus lamp (tube diameter 16 mm) provides extra energy savings by simple lamp-for-lamp replacement of TL5 HO Eco lamps, at the expense of slightly reduced light output. No compromises are made on the excellent TL5 lumen maintenance, lifetime and colour rendering. Application areas vary from offices and industry to schools and retail environments.

Product Features

- High lamp efficacies up to 107 lm/W
- Up to 20% power reduction compared with standard MASTER TL5 HO lamps and up to 10% compared with TL5 HO Eco lamps

Product Benefits

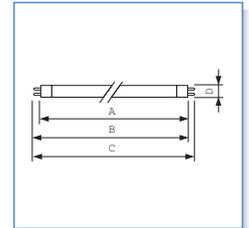
- Up to 20% energy saving simply by changing the lamp
- The same quality of light as from MASTER TL5 HO lamps
- All benefits of regular TL5 lamps

Application

- All current non-dimmable TL5 HO indoor applications, e. g. offices, schools, supermarkets, industrial facilities with room temperatures above 20°C (which means temperatures around the lamp of over 25-30°C)
- Not recommended for use where there is a strong air flow around the lamps

Warnings and Safety

- Power reduction and energy savings are only achieved with current-controlled gear. (N. B. Operation with power-controlled gear will result in more light output instead of reduced power and energy use.)
- TL5 HO EcoPlus is not designed for dimming applications.



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	1449	1453.7	1456.1	1463.2	17
2	1149	1153.7	1156.1	1163.2	17

MASTER TL5 HO EcoPlus G5

Wattage/Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Lum Efficacy Rated HF 35°C (lm/W)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/Packing configuration		National Order Code	Ordering number 8718291...	
41W/830	82	3,000	A	107	21,000	25,000	1	UNP / 40	40	41830TLSECO+	66336200	yes
41W/840	82	4,000	A	107	21,000	25,000	1	UNP / 40	40	41840TLSECO+	66337900	yes
44W/830	82	3,000	A	102	21,000	25,000	2	UNP / 40	40	44830TLSECO+	66332400	yes
44W/840	82	4,000	A	102	21,000	25,000	2	UNP / 40	40	44840TLSECO+	66333100	yes
66W/830	82	3,000	A	97	21,000	25,000	1	UNP / 40	40	66830TLSECO+	66340900	yes
66W/840	82	4,000	A	97	21,000	25,000	1	UNP / 40	40	66840TLSECO+	66341600	yes

MASTER TL5 High Output Eco



The world's most efficient and brightest fluorescent lighting. This extremely efficient TL5 lamp (tube diameter 16 mm) saves considerable energy by simple lamp-for-lamp replacement. The TL5 HO Eco lamp is optimized for installations requiring high light output and offers excellent lumen maintenance and colour rendering. Application areas vary from offices and industry to schools and retail environments.

Product Features

- High lamp efficacies up to 109 lm/W
- Up to 10% power reduction in comparison with standard MASTER TL5 HO lamps

Product Benefits

- Up to 10% energy saving with simply changing the lamp
- The same quality of light as compared with MASTER TL5 HO lamps
- All benefits of regular TL5 lamps

Environment

- Best environmental choice because of highest available energy efficiency for fluorescent lighting
- Less material, packaging, weight, transport and recycling volume due to smallest product dimensions
- This product range is RoHS compliant
- This product range is covered by WEEE

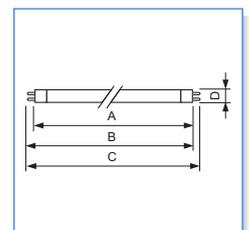
Application

- Offers very economic solutions for high-ceiling lighting in shops, industry and department stores
- The high luminous flux gives optimal results in aesthetic pendants and furniture-mounted luminaires in offices, workshops, restaurants and reception areas

Warnings and Safety

- Energy reduction is only achieved with current-controlled gear

- The lamps operate perfectly with power-controlled gear, but in that case give more light output instead of using less energy
- Depending on the technical design of the ballast the increase of light output can be up to 10% with a fully power-controlled ballast



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	549	553.7	556.1	563.2	17
2	1449	1453.7	1456.1	1463.2	17
3	1149	1153.7	1156.1	1163.2	17

MASTER TL5 HO Eco G5

Wattage/Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EL 25°C, Rated (lm)	Lum Efficacy Rated HF 35°C (lm/W)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/Packing configuration		National Order Code	Ordering number 8727900...	
20=24W/840	85	4,000	A	1,650	99	21,000	25,000	1	UNP / 40	40	20840TLSECO	88086100	yes
45=49W/830	85	3,000	A	4,100	109	21,000	25,000	2	UNP / 40	40	45830TLSECO	82594700	yes
45=49W/840	85	4,000	A	4,100	109	21,000	25,000	2	UNP / 40	40	45840TLSECO	82595400	yes
50=54W/830	85	3,000	A	4,450	102	21,000	25,000	3	UNP / 40	40	50830TLSECO	82590900	yes
50=54W/840	85	4,000	A	4,450	102	21,000	25,000	3	UNP / 40	40	50840TLSECO	82591600	yes
73=80W/840	85	4,000	A	6,550	96	21,000	25,000	2	UNP / 40	40	73840TLSECO	82597800	yes

MASTER TL5 High Efficiency

asimpleswitch.com



- Highly efficient 3-band fluorescent coating in combination with precoating
- Specifically designed for operation with electronic gear and well suited for dimming
- Maximum light output reached at approx. 35°C in free-burning position if an electronic ballast without additional electrode heating is used
- Can be ignited from -15 to +50°C

Product Benefits

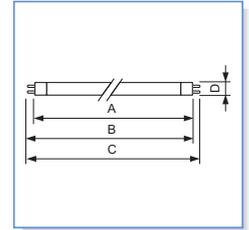
- Allows system miniaturisation and maximum luminaire design freedom
- Lamp lengths enable easy fitting into ceiling module systems
- Offers higher efficiencies and energy savings compared with TL-D lamps
- Virtually constant lumen level with excellent lumen maintenance
- Good colour rendering

Environment

- Best environmental choice because of highest energy efficiency available for fluorescent lighting. Lowest CO₂ emission compared to any other comparable lightsource (40% less than a TL-D standard lamp, 26% less than TL-D 800). Products having the "Green Flagship" logo contain the lowest mercury content in the industry and are 100% lead free. Less material, packaging, weight, transport and recycling volume due to smallest product dimensions (only 16 mm diameter, 40% less compared with TL-D lamps)
- This product range is RoHS compliant
- This product range is covered by WEEE

Application

- Ideally suited for recessed, surface-mounted and suspended luminaires in applications like offices, shops, schools, public buildings and industry, wherever high-quality, energy-effective lighting is required



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	549	553.7	556.1	563.2	17
2	849	853.7	856.1	863.2	17
3	1149	1153.7	1156.1	1163.2	17
4	1449	1453.7	1456.1	1463.2	17

Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

Product Features

- 40% thinner than TL-D lamps
- High lamp efficacies up to 104 lm/W

MASTER TL5 HE G5

Wattage/ Colour Code	Colour Rendering Index (Ra)	Colour Temperature (K)		Luminous Flux EL 25°C, Rated (lm)	Lum Efficacy Rated HF 35°C (lm/W)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration 	National Order Code	Ordering number	
14W/830	85	3,000	A	1,250	99	19,000	24,000	1	ISL / 40 40	14830	871150063938755	yes
14W/835	85	3,500	A	1,250	99	19,000	24,000	1	ISL / 40 40	14835	871150070765955	yes
14W/840	85	4,000	A	1,250	99	19,000	24,000	1	ISL / 40 40	14840	871150063940055	yes
14W/865	85	6,500	A	1,175	91	19,000	24,000	1	ISL / 40 40	14865	871150071009355	yes
21W/830	85	3,000	A	1,925	101	19,000	24,000	2	ISL / 40 40	21830	871150063942455	yes
21W/835	85	3,500	A	1,925	101	19,000	24,000	2	ISL / 40 40	21835	871829111501400	yes
21W/840	85	4,000	A	1,925	101	19,000	24,000	2	ISL / 40 40	21840	871150063944855	yes
21W/865	85	6,500	A	1,775	94	19,000	24,000	2	ISL / 40 40	21865	871150071011655	yes
28W/830	85	3,000	A	2,625	104	19,000	24,000	3	ISL / 40 40	28830	871150063946255	yes
28W/835	85	3,500	A	2,625	104	19,000	24,000	3	ISL / 40 40	28835	871150071004855	yes
28W/840	85	4,000	A	2,625	104	19,000	24,000	3	ISL / 40 40	28840	871150063948655	yes
28W/865	85	6,500	A	2,450	97	19,000	24,000	3	ISL / 40 40	28865	871150071015455	yes
28W/865	85	6,500	A	2,450	97	19,000	24,000	3	UNP / 40 40	28865IP	871150061092855	yes
35W/830	85	3,000	A	3,325	105	19,000	24,000	4	ISL / 40 40	35830	871150063950955	yes
35W/835	85	3,500	A	3,325	105	19,000	24,000	4	ISL / 40 40	35835	871150071006255	yes
35W/840	85	4,000	A	3,325	105	19,000	24,000	4	ISL / 40 40	35840	871150063952355	yes
35W/865	85	6,500	A	3,100	98	19,000	24,000	4	ISL / 40 40	35865	871150071018555	yes

MASTER TL5 High Output



- Specifically designed for operation with electronic gear and well suited for dimming
- Maximum light output reached at approx. 35°C in free-burning position if an electronic ballast without additional electrode heating is used
- Can be ignited from -15 to +50°C

Product Benefits

- Allows system miniaturisation and maximum luminaire design freedom
- Lamp lengths enable easy fitting into ceiling module systems
- Optimised for installations which need high luminous flux
- Virtually constant lumen level with excellent lumen maintenance
- Good colour rendering

Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

Product Features

- 40% thinner than TL-D lamps
- Designed for high light output and system miniaturisation
- Highly efficient 3-band fluorescent coating in combination with precoating

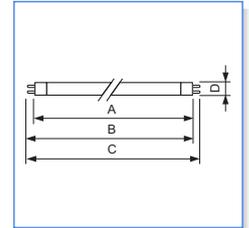
Environment

- Best environmental choice because of highest energy efficiency available for fluorescent lighting. Lowest CO₂ emission compared to any other comparable lightsource (40% less than a TL-D standard lamp, 26% less than TL-D 800). Products having the "Green Flagship" logo contain the lowest mercury content in the industry and are 100% lead free. Less material, packaging, weight, transport and recycling volume due to smallest product dimensions (only 16 mm diameter, 40% less compared with TL-D lamps)
- This product range is RoHS compliant
- This product range is covered by WEEE

Application

- The combination of a compact lamp and high lumen package of the MASTER TL5 HO offers exciting opportunities for architectural lighting and customised solutions

- Offers economic solutions with high-ceiling lighting in shops, industry and department stores
- The high luminous flux gives optimal results in aesthetic pendants and furniture-mounted luminaires in offices, workshops, restaurants and reception areas



Dim. no.	A		B		C		D
	max.	min.	max.	min.	max.	min.	
1	549	553.7	556.1	563.2	17		
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MASTER TL5 HO G5

Wattage/ Colour Code	Colour Rendering Index	Colour Temperature		Luminous Flux EL 25°C, Rated	Lum Efficacy Rated HF 35°C	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number	
	(Ra)	(K)		(lm)	(lm/W)	(h)	(h)						
24W/830	85	3,000	A	1,750	87	19,000	24,000	1	ISL / 40	40	24830	87115006 3958555	yes
24W/840	85	4,000	A	1,750	87	19,000	24,000	1	ISL / 40	40	24840	87115006 3960855	yes
39W/830	85	3,000	A	3,100	92	19,000	24,000	2	ISL / 40	40	39830	87115006 3962255	yes
39W/830	85	3,000	A	3,100	92	19,000	24,000	2	UNP / 40	40	39830IP	87115006 3716155	yes
39W/840	85	4,000	A	3,100	92	19,000	24,000	2	ISL / 40	40	39840	87115006 3964655	yes
49W/830	85	3,000	A	4,375	99	19,000	24,000	3	ISL / 40	40	49830	87115006 3954755	yes
49W/835	85	3,500	A	4,375	99	19,000	24,000	3	ISL / 40	40	49835	87182911 1503800	yes
49W/840	85	4,000	A	4,375	99	19,000	24,000	3	ISL / 40	40	49840	87115006 3956155	yes
49W/840	85	4,000	A	4,375	99	19,000	24,000	3	UNP / 40	40	49840IP	87115006 3758155	yes
49W/865	85	6,500	A	4,075	92	19,000	24,000	3	ISL / 40	40	49865	87115006 4389655	yes
54W/830	85	3,000	A	4,450	93	19,000	24,000	4	ISL / 40	40	54830	87115006 4316255	yes
54W/840	85	4,000	A	4,450	93	19,000	24,000	4	ISL / 40	40	54840	87115006 4318655	yes
54W/865	85	6,500	A	4,150	86	19,000	24,000	4	ISL / 40	40	54865	87115006 4391955	yes

MASTER TL5 High Output Xtra



- Highly efficient 3-band fluorescent coating in combination with precoating
- Specifically designed for operation with electronic gear
- Maximum lumen output reached at approx. 35°C in free-burning position
- Can be ignited from -15° to +50°C
- Low mercury dose
- End-cap has an x-shaped green bottom plate to distinguish the lamp from other fluorescent lamps

Product Benefits

- Compact lamp with high lumen package
- Longer lifetime and fewer early failures mean lower maintenance costs and facilitate change from spot to group replacement
- Less waste and disposal cost at end-of-life
- Allow system miniaturization with maximum luminaire design freedom
- Optimized for installations which need high luminous flux

- Excellent lumen maintenance
- Good colour rendering

Environment

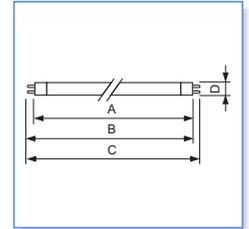
- Best environmental choice because of highest energy efficiency for fluorescent lighting and long reliable life. This leads to lower CO₂ emissions than any other comparable light source (40% less than TL-D standard lamp, 26% less than TL-D 800) and less waste. Products with the 'Green Flagship' logo have the industry's lowest mercury content and are 100% lead-free. Less material, packaging, weight, transport and recycling volume due to smallest product dimensions (only 16 mm diameter, 40% less than TL-D lamps)
- This product range is RoHS compliant
- This product range is covered by WEEE

Applications

- Where maintenance costs are high, e.g. high ceilings or other hard-to-reach locations
- Department stores, supermarkets, warehouses, production halls and public areas like car parks and railway stations

System

- Can be used with TL5 electronic gear
- Longest lifetime is achieved with Philips HF Xtreme gear



Dim. no.	A		B		C		D
	max.	min.	max.	min.	max.	min.	
1	1449	1453.7	1456.1	1463.2	17		
2	1149	1153.7	1156.1	1163.2	17		

Product Description

- Low-pressure high-output mercury discharge lamps with a tubular 16 mm envelope

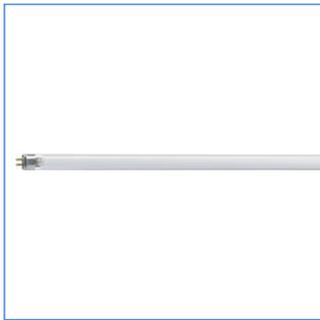
Product Features

- Significant reduction of early failures through advanced long life technology
- Extra long lifetime and high reliability
- Designed for high lumen output and system miniaturization (40% thinner than TL-D lamps)

MASTER TL5 HO Xtra G5

Wattage/ Colour Code	Colour Rendering Index	Colour Temperature		Luminous Flux EL 25°C, Rated	Lum Efficacy Rated HF 35°C	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
49W/830	85	3,000	A	4,375	99	30,000	45,000	1	ISL / 20	20	49830XTRATLS	26251605	yes
49W/840	85	4,000	A	4,375	99	30,000	45,000	1	ISL / 20	20	49840XTRATLS	26253005	yes
54W/830	85	3,000	A	4,450	93	30,000	45,000	2	ISL / 20	20	54830XTRATLS	26323005	yes
54W/840	85	4,000	A	4,450	93	30,000	45,000	2	ISL / 20	20	54840XTRATLS	26352005	yes
80W/830	85	3,000	A	6,240	88	30,000	45,000	1	ISL / 20	20	80830XTRATLS	26261505	yes
80W/840	85	4,000	A	6,240	88	30,000	45,000	1	ISL / 20	20	80840XTRATLS	26303205	yes

MASTER TL5 High Output TOP



Product Features

- Lumen output higher than 90% of maximum value at ambient lamp temperatures from 20 to 75°C due to amalgam-controlled operation
- Allows dimming-down to 30% light output
- Hot restrike and good run-up behaviour compared to high intensity discharge lamps due to auxiliary amalgams at both lamp ends
- Can be ignited at temperatures from -15 to +75°C
- Allows system miniaturization with maximum luminaire design freedom
- Lamp lengths enable easy fitting into ceiling module systems
- Retrofit to current TL5 HO non-amalgam lamps
- Optimized for installations which need high luminous flux, especially in hot (above 40°C) conditions

- Constant lumen level over a wide temperature range (20-75°C) with excellent lumen maintenance
- Good colour rendering

Environment

- Highest energy efficiency in fluorescent lighting
- Less material, packaging, weight, transport and recycling volume due to smallest product dimensions (only 16 mm diameter, 40% less than TL-D)
- RoHS compliant
- Covered by WEEE

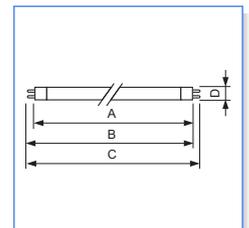
Application

- Architectural lighting and customized solutions thanks to compact lamp size and high lumen package, especially in hot (above 40°C) conditions
- Economic solutions with high-ceiling lighting in retail and industrial application areas
- Especially uplighting applications in offices where higher lumen packages are needed

- Esthetic pendants, closed and furniture-mounted luminaires in offices, workshops, restaurants and reception areas

Warnings and Safety

Not recommended for emergency lighting due to slower run-up behaviour than non-amalgam TL5 lamps



A	B	C	D
max.	min.	max.	max.
1449	1453.7	1456.1	1463.2
			17

Temperature independent fluorescent lighting

This TL5 HO lamp (tube diameter 16 mm) offers a constant light level, independent of temperature fluctuations, making it an excellent solution for warm applications. The TL5 HO TOP can be operated on equivalent systems as MASTER TL5 HO. Excellent solution for warm applications, such as unconditioned warehouses, wall washers, etc.

MASTER TL5 HO TOP G5

Wattage/ Colour Code	Colour Rendering Index	Colour Temperature		Luminous Flux EL 25°C, Rated	Lum Efficacy Rated HF 35°C	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
49W/840	85	4,000	A	4,650	99	19,000	24,000	ISL / 20	20	49840TOP	26687305	yes
80W/840	85	4,000	B	6,650	88	19,000	24,000	ISL / 20	20	80840TOP	26691005	yes

MASTER TL5 HE Secura



Shatterfree fluorescent lighting

This TL5 High Efficiency Secura lamp (tube diameter 16 mm) has a protective coating that keeps glass and lamp components together in the event of accidental breakage. The lamp is easily identifiable by a blue ring at one end. Application areas are all places where glass shatters can disturb operations and can have an impact on product and people safety, e. g. the food and beverage industry. This lamp is compliant with HACCP regulations and supports HACCP certification.

Product Features

- Protective coating around the lamp
- Fully compliant with IEC 61549 - Fragment Retention Lamp Standard
- Compliant with relevant standards in the food industry, such as HACCP and ISO 22000

- Superior coating material (Teflon) with high temperature resistance (up to 200°C) and no degradation under influence of temperature or UV
- Single blue ring around one end for identification
- Direct retrofit for all TL5 HE lamps
- Special protective coating around the lamp prevents products from contamination in case of accidental lamp breakage
- High temperature-resistance (up to 200°C) and no degradation under influence of temperature or UV
- Making luminaires compliant with relevant standards in the industry, such as HACCP, ISO 22000 and IEC 61549

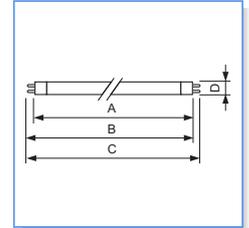
Environment

- Best environmental choice because of highest energy efficiency

- This product is RoHS compliant
- This product is covered by WEEE

Application

- For use where contamination resulting from lamp breakage must be prevented, e. g. in food industry, suppliers to the food industry, health care, pharmaceuticals, cleanrooms etc.
- Suitable for use in environments with increased risk of breakage, e. g. sports halls



A	B	C	D
max.	min.	max.	max.
1149	1153.7	1156.1	1163.2
			17

MASTER TL5 HE Secura G5

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Tempera- ture (K)		Luminous Flux EL 25°C, Rated (lm)	Lum Efficacy Rated HF 35°C (lm/W)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Packing type/ Packing configuration		National Order Code	Ordering number 871 1500...	
28W/840	85	4,000	A	2,625	104	19,000	24,000	UNP / 40	40	28840TL5SEC	95215855	yes

MASTER TL5 High Output Secura



Shatterfree fluorescent lighting

This TL5 High Output Secura lamp (tube diameter 16 mm) has a protective coating that keeps glass and lamp components together in the event of accidental breakage. The lamp is easily identifiable by a blue ring at one end. Application areas are all places where glass shatters can disturb operations and can have an impact on product and people safety, e. g. the food and beverage industry. This lamp is compliant with HACCP regulations and supports HACCP certification.

Product Features

- Protective coating around the lamp
- Fully compliant with IEC 61549 - Fragment Retention Lamp Standard
- Superior coating material (Teflon) with high temperature-resistance (up to 200°C) and no degradation under influence of temperature or UV

- Single blue ring around one end for identification
- Direct retrofit for all TL5 HO lamps

Product Benefits

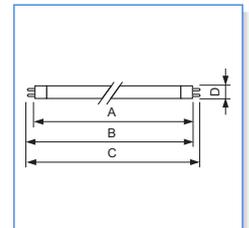
- Special protective coating around the lamp prevents products from contamination in case of accidental lamp breakage
- High temperature-resistance (up to 200°C) and no degradation under influence of temperature or UV
- Making luminaires compliant with relevant standards in the industry, such as HACCP, ISO 22000 and IEC 61549

Environment

- Best environmental choice because of highest energy efficiency
- This product is RoHS compliant
- This product is covered by WEEE

Application

- For use where contamination resulting from lamp breakage must be prevented, e. g. in food industry, suppliers to the food industry, health care, pharmaceuticals, cleanrooms etc.
- Suitable for use in environments with increased risk of breakage, e. g. sports halls



Dim. no.	A	B	C	D
1	max.	min.	max.	max.
1	1149	1153.7	1156.1	1163.2
2	1449	1453.7	1456.1	1463.2
				17

MASTER TL5 HO Secura G5

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Tempera- ture (K)		Lamp Lumi- nous Flux 25°C EL (lm)	Luminous Flux EL 25°C, Rated (lm)	Lum Efficacy Rated HF 35°C (lm/W)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configu- ration		National Order Code	Ordering number 871 1500...	
54W/840	85	4,000	A	4,450	4,450	93	19,000	24,000	1	UNP / 40	40	54840TL5SEC	95231855	yes
80W/840	85	4,000	A	6,550	6,550	88	19,000	24,000	2	UNP / 40	40	80840TL5SEC	95235655	yes

MASTER TL5 Circular



Product Description

- 16 mm tube diameter circular fluorescent lamps with a choice of various diameters

Product Features

- Perfect circular shape
- Highly efficient 3-band fluorescent coating
- Specifically designed for operation with electronic gear
- Can be ignited from -15 to +50°C
- Amalgam technology

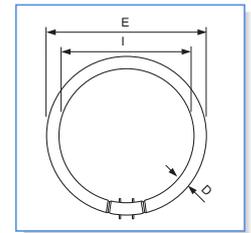
Product Benefits

- Slim 16 mm tube allows creation of extremely flat luminaires
- Allows appealing circular designs

- High lamp efficacy
- Good colour rendering
- Temperature independent light output
- Higher average system efficiency

Application

- Brings the benefits of TL5 lighting to an even wider range of attractive applications
- Suitable for a wide range of professional and semi-professional applications
- Ideal for use in shops, offices and public areas with non-traditional lay-outs
- Amalgam lamps are limited suitable for dimming applications



Dim. no.	D		E		I	
	min.	max.	min.	max.	min.	max.
1	14	18	220	230	187	197
2	14	18	293	305	260	272
3	14	18	367	379	334	346

MASTER TL5 Circular 2GX13

Wattage/ Colour Code	Colour Rendering Index (Ra)	Colour Temperature (K)		Luminous Flux EL 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
22W/830	85	3,000	A	1,800	8,000	12,000	1	ICT / 10	10	22TL5C830	64095625	yes
22W/840	85	4,000	A	1,800	8,000	12,000	1	ICT / 10	10	22TL5C840	64221925	yes
40W/830	85	3,000	A	3,300	8,000	12,000	2	ICT / 10	10	40TL5C830	64097025	yes
40W/840	85	4,000	A	3,300	8,000	12,000	2	ICT / 10	10	40TL5C840	64223325	yes
55W/830	85	3,000	B	4,200	8,000	12,000	2	ICT / 10	10	55TL5C830	64279025	yes
55W/840	85	4,000	B	4,200	8,000	12,000	2	ICT / 10	10	55TL5C840	64251625	yes
60W/830	85	3,000	B	5,000	8,000	12,000	3	ICT / 10	10	60TL5C830	64259225	yes
60W/840	85	4,000	B	5,000	8,000	12,000	3	ICT / 10	10	60TL5C840	64261525	yes

TL-D

MASTER TL-D Eco



- Uses the latest highly efficient phosphors and special filling gas
- High-quality lighting with good colour rendering (CRI > 80)
- Light output comparable to other TL-D Super 80 colours
- Lumen maintenance and lifetime the same as other TL-D Super 80 colours
- Dimmable

Product Benefits

- Simple lamp-for-lamp replacement for more than 10% energy savings
- Makes lighting installations compliant with latest indoor lighting standards
- Relatively high efficacy, both initially and during lifetime, with high lumen maintenance

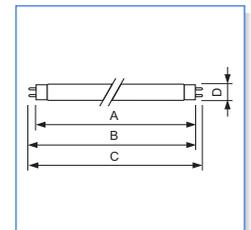
Environment

- Allows easy switching to more energy-conscious solutions
- Helps reduce CO₂ emissions and meet climate change targets
- Philips Green Flagship label due to extremely low mercury levels

- RoHS compliant
- Covered by WEEE

Application

- For use in indoor applications with room temperatures above 20°C (which implies temperature around the lamp of over 25-35°C)
- Primary focus on offices, schools and hospitals; secondary focus on retail, industry, supermarkets
- Not recommended under the following conditions:
 - with air flow around the lamps
 - in luminaires with active air handling (lamp temperature will not be the required 25-35°C, but room temperature)
 - in open luminaires/battens very close to air conditioning outlets or cold air flows
 - in space above freezers (temperature may easily drop below 20°C)
 - in combination with VRUs (voltage reduction units)



Dim. no.	A		B		C		D
	max.	min.	max.	max.	max.	max.	
1	589.8	594.5	596.9	604.0	28		
2	1199.4	1204.1	1206.5	1213.6	28		
3	1500.0	1504.7	1507.1	1514.2	28		

Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

Product Features

- The only T8 fluorescent lamp that saves more than 10% of energy in existing indoor luminaires
- Can be directly retrofitted into existing fluorescent fittings operating on conventional EM or HF gear in indoor applications

MASTER TL-D Eco G13

Wattage/ Colour Code	Colour Rendering Index (Ra)	Colour Temperature (K)		Luminous Flux Lamp EM 30°C (lm)	Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
16W/840	85	4,000	A	1,300	1,175	17,000	20,000	1	ISL / 25	25	16840TLDECO	26861740	yes
32W/830	85	3,000	A	3,000	2,650	17,000	20,000	2	ISL / 25	25	32830TLDECO	26458940	yes
32W/840	85	4,000	A	3,000	2,650	17,000	20,000	2	ISL / 25	25	32840TLDECO	26462640	yes
51W/830	85	3,000	A	4,800	4,550	17,000	20,000	3	ISL / 25	25	51830TLDECO	26466440	yes
51W/840	85	4,000	A	4,800	4,550	17,000	20,000	3	ISL / 25	25	51840TLDECO	26470140	yes

MASTER TL-D Power Saver Set



Product Features

- Up to 30% energy saving, while maintaining the lighting level compared to a TL-D Standard colours lamps (halophosphate), is achieved by an intelligent electronic starter in combination with the most efficient fluorescent TL-D lamp
- Designed for operation on electro-magnetic gear only
- Full thermal safety monitoring which cuts off defective or end-of-life lamps
- Instant flicker-free ignition (nom. 2.0 seconds)
- Can be ignited from -15 to +50°C
- Product range is RoHS-compliant
- Product range is covered by WEEE

Product Benefits

- Significant energy saving while maintaining light levels and improving light quality in comparison with TL-D Standard colours lamps (halophosphate)

Simply 30% energy saving

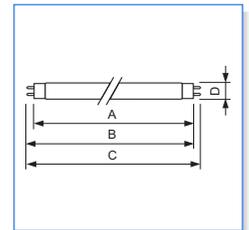
The MASTER TL-D Power Saver Set is a perfect solution for upgrading your existing lighting installation with a special TL-D lamp with an intelligent starter. It offers considerable energy savings while maintaining the same lighting level and a better light quality. The MASTER TL-D Power Saver Set is easy to install, simply by changing the lamp and the starter. The benefits are huge in all current installations with TL-D lamps.

- Higher colour rendering than TL-D Standard colours lamps (halophosphate)
- Longer lifetime than TL-D Standard colours lamps (halophosphate)
- Instant, smooth and flicker-free start-up of the lamps
- Lamps are switched off directly at end-of-life, preventing irritation (no flickering), unnecessary electricity consumption and fire risk
- Starter contains flame-retardant components; UV-resistant canister ensures increased safety and secure ignition

Application

- Suitable to replace TL-D Standard colours lamps (halophosphate) in all existing TL-D luminaires with electromagnetic gear (220/240 V, 50 Hz). Use on 60 Hz and/or 110 V systems leads to non-functionality of the system.

- Can also be used to replace MASTER TL-D Super 80 lamps, but the light output of the total installation will then be reduced by approximately 20%.



Dim. no.	A		B		C		D
	max.	min.	max.	max.	max.		
1	589.8	594.5	596.9	604.0	28		
2	1199.4	1204.1	1206.5	1213.6	28		
3	1500.0	1504.7	1507.1	1514.2	28		

MASTER TL-D Power Saver Set G13

Wattage/Colour Code	Colour Rendering Index (Ra)	Colour Temperature (K)	Dim. no.	Packing type/ Packing configuration	National Order Code	Ordering number 8727900...		
12=18W/830	82	3,000	A	ISL / 25	25	18830TLDPSSI XI	91496200	yes
12=18W/840	82	4,000	A	ISL / 25	25	18840TLDPSSI XI	91498600	yes
12=18W/865	82	6,500	A	ISL / 25	25	18865TLDPSSI XI	91500600	yes
23=36W/830	82	3,000	A	ISL / 25	25	36830TLDPSSI XI	91502000	yes
23=36W/840	82	4,000	A	ISL / 25	25	36840TLDPSSI XI	91504400	yes
23=36W/865	82	6,500	A	ISL / 25	25	36865TLDPSSI XI	91506800	yes
37=58W/830	82	3,000	A	ISL / 25	25	58830TLDPSSI XI	91508200	yes
37=58W/840	82	4,000	A	ISL / 25	25	58840TLDPSSI XI	91510500	yes
37=58W/865	82	6,500	A	ISL / 25	25	58865TLDPSSI XI	91512900	yes

MASTER TL-D Super 80



Product Features

- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- High initial light output
- Available in varying colour designations
- Low mercury dose

Product Benefits

- Special fluorescent coating gives good colour rendering
- Relatively high efficacy, both initially and during lamp lifetime, with high lumen maintenance
- Create atmospheres from warm white to cool daylight

Product Description

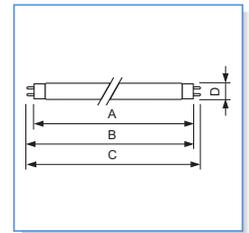
- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

Environment

- Best environmental T8 choice because of TL-D /800 superior energy efficiency compared to TL-D Standard lamps. Lowest mercury content in the industry and 100% lead free
- Lowest amount of mercury in the market for colour 800 fluorescent tubes
- RoHS compliant
- This product range is covered by WEEE

Application

- Suitable for use in a wide range of luminaires for TL-D fluorescent lamps for 'human' applications such as schools, offices, shops, factory halls etc.



Dim. no.	A		B		C		D	
	max.	min.	max.	max.	max.	max.		
1	437.4	442.1	444.5	451.6	28			
2	589.8	594.5	596.9	604.0	28			
3	970.0	974.7	977.1	984.2	28			
4	894.6	899.3	901.7	908.8	28			
5	1199.4	1204.1	1206.5	1213.6	28			
6	1047.0	1051.7	1054.1	1061.2	28			
7	1500.0	1504.7	1507.1	1514.2	28			
8	1763.8	1768.5	1770.9	1778.0	28			

MASTER TL-D Super 80 GI3

Wattage/Colour Code/Version	Colour Rendering Index (Ra)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL, 3h (h)	Life to 50% fail Preheat EL, 3h (h)	Dim. no.	Packing type/ Packing configuration	National Order Code	Ordering number 8711500...	
15W/830	85	3,000	B	1,000	17,000	20,000	1	ISL / 25 25	15830	70279140	yes
15W/840	82	4,000	B	1,000	17,000	20,000	1	ISL / 25 25	15840	70280740	yes
18W/827	85	2,700	A	1,350	17,000	20,000	2	ISL / 25 25	18827	63162640	yes
18W/830	85	3,000	A	1,350	17,000	20,000	2	ISL / 25 25	18830	63165740	yes
18W/835	85	3,500	A	1,350	17,000	20,000	2	ISL / 25 25	18835	63168840	yes
18W/840	85	4,000	A	1,350	17,000	20,000	2	ISL / 25 25	18840	63171840	yes
18W/865	85	6,500	A	1,300	17,000	20,000	2	ISL / 25 25	18865	63177040	yes
23W/840	82	4,000	A	2,050	17,000	20,000	3	ISL / 25 25	23840	55870140	yes
30W/830	85	3,000	A	2,400	17,000	20,000	4	ISL / 25 25	30830	63183140	yes
30W/840	85	4,000	A	2,400	17,000	20,000	4	ISL / 25 25	30840	63186240	yes
36W/827	85	2,700	A	3,350	17,000	20,000	5	ISL / 25 25	36827	63192340	yes
36W/830	85	3,000	A	3,350	17,000	20,000	5	ISL / 25 25	36830	63195440	yes
36W/835	85	3,500	A	3,350	17,000	20,000	5	ISL / 25 25	36835	63198540	yes
36W/840	85	4,000	A	3,350	17,000	20,000	5	ISL / 25 25	36840	63201240	yes
36W/840 - 1m	85	4,000	A	3,100	17,000	20,000	3	ISL / 25 25	M36840NG	55877040	yes
36W/865	85	6,500	A	3,250	17,000	20,000	5	ISL / 25 25	36865	63207440	yes
38W/830	85	3,000	A	3,350	17,000	20,000	6	ISL / 25 25	38830NG	55880040	yes
38W/840	85	4,000	A	3,350	17,000	20,000	6	ISL / 25 25	38840NG	55883140	yes
58W/827	85	2,700	A	5,240	17,000	20,000	7	ISL / 25 25	58827	63210440	yes
58W/835	85	3,500	A	5,240	17,000	20,000	7	ISL / 25 25	58835	63216640	yes
58W/840	85	4,000	A	5,240	17,000	20,000	7	ISL / 25 25	58840	63219740	yes
58W/865	85	6,500	A	5,000	17,000	20,000	7	ISL / 25 25	58865	63225840	yes
70W/830	85	3,000	A	6,200	17,000	20,000	8	ISL / 25 25	70830	61598540	yes
70W/835	85	3,500	A	6,200	17,000	20,000	8	ISL / 25 25	70835	64273840	yes
70W/840	85	4,000	A	6,200	17,000	20,000	8	ISL / 25 25	70840	61592340	yes

MASTER TL-D Secura



Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

Product Features

- Protective coating around the entire lamp
- Blue ring around one end

- Direct retrofit for all Standard and Super /80 TL-D lamps operating on conventional or HF gear
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- Available in various colour designations
- Low mercury dose
- Recyclable at end-of-life, including the protective lamp coating
- End-cap has green bottom plate to identify lamp as recyclable

Product Benefits

- Special protective coating in the lamp-, prevents products from contamination in case of accidental lamp breakage
- Easy identification in audit situations by blue ring at one end
- Special fluorescent coating gives good colour rendering

- Relatively high efficacy, both initially and during lamp lifetime, with high lumen maintenance
- Protects products from discolouring and loss of taste by 90% lower UV emission
- Compliant with HACCP regulations and supports HACCP certification

Environment

- Good environmental choice because of lowest mercury content and lead-free
- This product is RoHS compliant
- This product is covered by WEEE

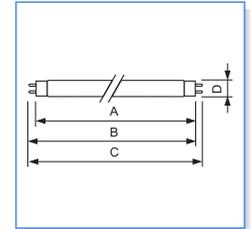
Application

- For use where contamination resulting from lamp breakage must be prevented, e. g. in food preparation, health care, pharmaceuticals, cleanrooms etc.
- Suitable for use in environments with increased risk of breakage, e. g. sports halls

- Suitable for use in environments where UV emission should be reduced (museums, libraries, archives, food industry, fashion shops, etc.)

Warnings and Safety

- Not suitable for closed luminaires (as indicated by two blue rings)
- Recommended use in combination with self-stopping lamp control system



Dim. no.	A		B		C		D
	max.	min.	max.	min.	max.	min.	
1	589.8	594.5	596.9	604.0	28		
2	1500.0	1504.7	1507.1	1514.2	28		

MASTER TL-D Secura G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration	National Order Code	Ordering number 8711500...	
18W/830	85	3,000	A	1,300	17,000	20,000	1	ISL / 25 25	18830SEC	64006240	yes
58W/840	85	4,000	A	5,000	17,000	20,000	2	ISL / 25 25	58840BSEC	64018540	yes

MASTER TL-D Reflex



Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

Product Features

- Internal reflector directs the light via a 160° 'window'
- Reflector directs 85% of the light downwards avoiding wasted light
- Direct retrofit for existing fluorescent fittings operating on conventional or HF gear
- High-quality lighting with good colour rendering (CRI > 80)
- Light output comparable to other TL-D Super 80 colours
- Lumen maintenance and lifetime the same as other TL-D Super 80 colours
- Dimmable

Product Benefits

- Internal reflector directs the light where it is needed

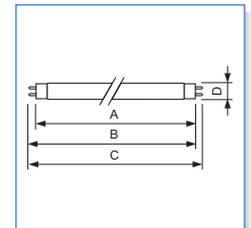
- Energy savings of 30-50% in non-reflector luminaires without loss of light
- Internal reflector is not affected by dust accumulation (in contrast to normal TL-D lamps)
- Relatively high efficacy, both initially and during lifetime, with high lumen maintenance

Environment

- 30 – 50% energy savings make TL-D Reflex an excellent environmental choice
- RoHS compliant
- Covered by WEEE

Application

- Luminaires without reflectors or with only simple reflectors, mainly found in industry and shops / supermarkets

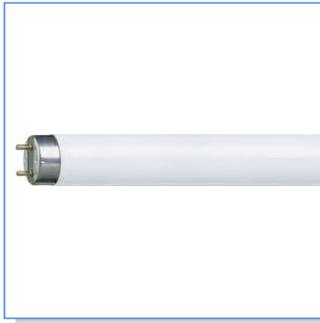


Dim. no.	A		B		C		D
	max.	min.	max.	min.	max.	min.	
1	589.8	594.5	596.9	604.0	28		
2	1199.4	1204.1	1206.5	1213.6	28		
3	1500.0	1504.7	1507.1	1514.2	28		

MASTER TL-D Reflex G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration	National Order Code	Ordering number 8711500...	
18W/830	85	3,000	A	1,350	17,000	20,000	1	ISL / 25 25	18830R	63644740	yes
18W/840	85	4,000	A	1,350	17,000	20,000	1	ISL / 25 25	18840R	63647840	yes
18W/865	85	6,500	A	1,300	17,000	20,000	1	ISL / 25 25	18865RFECO	26029140	yes
36W/840	85	4,000	A	3,350	17,000	20,000	2	ISL / 25 25	36840R	55953140	yes
58W/840	85	4,000	A	5,240	17,000	20,000	3	ISL / 25 25	58840R	55962340	yes
58W/865	85	6,500	A	5,000	17,000	20,000	3	ISL / 25 25	58865RFECO	26033840	yes

MASTER TL-D HF Super 80



Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope and argon gas filling

Product Features

- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- High initial lumen output
- Available in varying colour designations
- Low mercury dose
- MASTER TL-D lamps are fully recyclable
- End-cap has green bottom plate to identify lamp as recyclable

Product Benefits

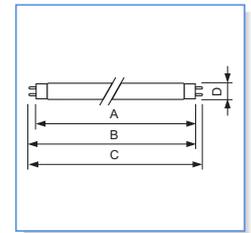
- Relatively high efficacy, both initially and during lamp lifetime, with high lumen maintenance
- Good colour rendering
- Creates atmospheres from warm white to cool daylight

Application

- Suitable for use in a wide range of luminaires for TL-D fluorescent lamps for 'human' applications such as schools, offices, shops, factory halls etc.

Warnings and Safety

- Special electronic gear must be used



Dim. no.	A		B		C		D
	max.	min.	max.	max.	max.		
1	589.8	594.5	596.9	604.0	28		
2	1199.4	1204.1	1206.5	1213.6	28		
3	1500.0	1504.7	1507.1	1514.2	28		

MASTER TL-D HF Super 80 G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EL 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
16W/830	85	3,000	A	1,400	17,000	20,000	1	ISL / 25	25	16830	63144240	yes
16W/840	85	4,000	A	1,400	17,000	20,000	1	ISL / 25	25	16840	63147340	yes
32W/840	85	4,000	A	3,200	17,000	20,000	2	ISL / 25	25	32840	63153440	yes
50W/840	85	4,000	A	5,000	17,000	20,000	3	ISL / 25	25	50840	63159640	yes

MASTER TL-D Xtra



- Extra long and reliable lifetime
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- Low mercury dose for a long-life lamp
- Fully recyclable lamp technology
- End-cap has an x-shaped green bottom plate to distinguish the lamp from other fluorescent lamps

Product Benefits

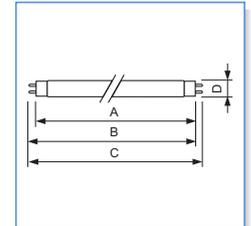
- Longer lifetime and less early failures lead to less hassle and lower maintenance costs and facilitate the change from spot to group replacement
- Less waste and disposal cost at end-of-life
- Special fluorescent coating gives good colour rendering

Environment

- Good environmental choice because of long reliable life (180% better than T8 standard), low waste (only 1 lamp compared to 2 T8 standard), lowest mercury content and lead-free
- This product is a Philips Green Flagship
- This product is RoHS compliant
- This product is covered by WEEE

Application

- Suitable for use in applications where maintenance costs are high (high ceilings, difficult to reach): department stores, supermarkets, warehouses, production halls, offices and public areas like car parks and railway stations



Dim. no.	A		B		C		D
	max.	min.	max.	max.	max.		
1	589.8	594.5	596.9	604.0	28		
2	894.6	899.3	901.7	908.8	28		
3	1199.4	1204.1	1206.5	1213.6	28		
4	1500.0	1504.7	1507.1	1514.2	28		
5	1763.8	1768.5	1770.9	1778.0	28		

Product Description

- Low-pressure mercury discharge lamp with a tubular 26 mm envelope

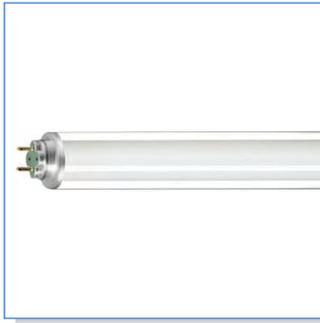
Product Features

- Significant reduction of early failures based upon a new technology (patent pending)

MASTER TL-D Xtra G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
18W/830	85	3,000	A	1,350	46,500	55,000	1	ISL / 25	25	18830XTRA	54498840	yes
18W/840	85	4,000	A	1,350	46,500	55,000	1	ISL / 25	25	18840XTRA	55862640	yes
30W/830	85	3,000	A	2,400	47,000	55,000	2	ISL / 25	25	30830XTRA	89532540	yes
30W/840	85	4,000	A	2,400	47,000	55,000	2	ISL / 25	25	30840XTRA	89536340	yes
36W/830	85	3,000	A	3,350	47,000	55,000	3	ISL / 25	25	36830XTRA	55871840	yes
36W/840	85	4,000	A	3,350	47,000	55,000	3	ISL / 25	25	36840XTRA	55876340	yes
58W/830	85	3,000	A	5,200	47,000	55,000	4	ISL / 25	25	58830XTRA	55888640	yes
58W/840	85	4,000	A	5,200	47,000	55,000	4	ISL / 25	25	58840XTRA	55890940	yes
70W/840	85	4,000	A	6,150	47,000	55,000	5	ISL / 25	25	70840XTRA	89552340	yes

MASTER TL-D Xtra Polar



Product Features

- Improved light output in low ambient temperatures
- The same reliable, long lifetime performance as regular MASTER TL-D Xtra
- Robust lamp construction due to strong, temperature-resistant assembly kit
- 10 pcs. packaging

Product Benefits

- Substantial energy saving (up to 70%) due to higher efficacy at lower temperatures
- Strong reduction in maintenance costs due to high reliability and long lifetime
- Fully temperature-resistant in all conditions; no temperature-related relamping problems

Product Description

- Polar versions are regular MASTER TL-D Xtra lamps inside a clear T10 or T12 tube (T10 = 32 mm diameter, T12 = 38 mm diameter)

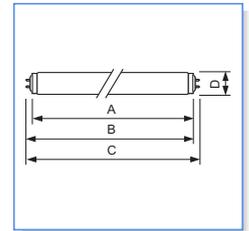
- Supports end-user sustainability programs (low mercury level and low waste due to long lifetime)
- Miniaturisation: Polar T10 version (32 mm) is suited for situations where the diameter of the Polar T12 lamp (38 mm) is too large

Environment

- Good environmental choice because of highest energy efficiency in colder conditions (<10°C), long reliable life (380% better than T8 standard), low waste (only 1 lamp compared to 4 T8 standard), lowest mercury content and lead-free
- This product is a Philips Green Flagship
- This product is RoHS compliant
- This product is covered by WEEE

Application

- All applications at lower ambient temperatures (below 10°C)
- Indoor: cold stores and other refrigerated areas
- Outdoor: petrol stations, car parks, shipping docks, petrochemical plants, sign lighting, tunnels



Dim. no.	A		B		C		D
	max.	min.	max.	min.	max.	min.	
1	589.8	594.5	596.9	604.0	40.5		
2	1199.4	1204.1	1206.5	1213.6	40.5		

MASTER TL-D Xtra Polar G13

Wattage/Colour Code	Bulb	Colour Rendering Index	Colour Temperature		Luminous Flux EM 25°C, Rated	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
		(Ra)	(K)		(lm)	(h)	(h)						
18W/830	T12	85	3,000	A	1,350	47,000	55,000	1	ISL / 10	10	18830XTRAPOLAR	89303125	yes
36W/830	T12	85	3,000	A	3,350	47,000	55,000	2	ISL / 10	10	36830XTRAPOLAR	89315425	yes

MASTER TL-D Xtra Secura



- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- Low mercury dose for a long-life lamp (5 mg)
- Fully recyclable lamp technology
- End-cap has an x-shaped green bottom plate to distinguish the lamp from other fluorescent lamps
- Strong, temperature-resistant protective Secura coating based on FEP (Teflon)
- Coating lifetime is identical to the lifetime of the lamp

Product Benefits

- Protective Teflon coating keeps glass and lamp components together in case of accidental breakage; allows use in open luminaires in food & beverages industry
- Easy identification in audit situations by blue ring at one end
- Special fluorescent coating gives good colour rendering

Product Description

- Low-pressure mercury discharge lamp with a tubular 26 mm envelope and a clear protective coating

Product Features

- Significant reduction of early failures based on new X-technology
- Extra-long life and high reliability

- Extra-long lifetime and reduced early failures mean lower maintenance workload and costs, and facilitate change from spot to group replacement
- Reduced waste and disposal costs at end-of-life
- Compliant with HACCP regulations and supports HACCP certification

Environment

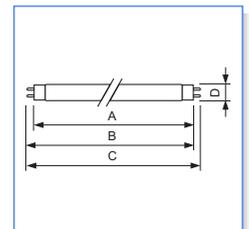
- Good environmental choice because of long reliable life (180% better than T8 standard), low waste (only 1 lamp compared to 2 T8 standard), lowest mercury content and lead-free
- This product is a Philips Green Flagship
- This product is RoHS compliant
- This product is covered by WEEE

Application

- Food & beverages and pharmaceuticals industry: factories, distribution centres, retail outlets; locations where maintenance costs are high (high ceilings, difficult access)

Warnings and Safety

- No dimming below 30% should be applied for achieving lifetimes as published for 100% operations
- The longest lifetime to be achieved with Philips HF Xtreme gear
- Recommended use in combination with self-stopping lamp control system



A	B	C	D
max.	min.	max.	max.
1500	1504.7	1507.1	1514.2
			28

MASTER TL-D Xtra Secura G13

Wattage/Colour Code	Colour Rendering Index	Colour Temperature		Luminous Flux EM 25°C, Rated	Life to 10% fail Preheat EL,3h	Life to 50% fail Preheat EL,3h	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
	(Ra)	(K)		(lm)	(h)	(h)					
58W/840	85	4,000	A	5,100	47,000	55,000	ISL / 25	25	58840XTRASEC	88991140	yes

MASTER TL-D Xtreme



- Extreme long and reliable lifetime
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- Low mercury dose for a long-life lamp (5 mg)
- Fully recyclable lamp technology
- End-cap has an x-shaped green bottom plate to distinguish lamp from other fluorescent lamps

Product Benefits

- Longer lifetime and less early failures lead to less hassle and lower maintenance costs and facilitate the change from spot to group replacement
- Less waste and disposal cost at end-of-life
- Special fluorescent coating gives good colour rendering

Product Description

- Low-pressure mercury discharge lamp with a tubular 26 mm envelope

Product Features

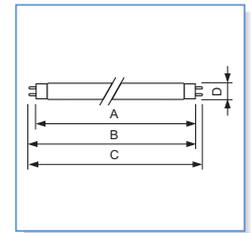
- Significant reduction of early failures based upon a new technology (patent pending)

Environment

- Good environmental choice because of long reliable life (380% better than T8 standard), low waste (only 1 lamp compared to 4 T8 standard), lowest mercury content and lead-free
- This product is a Philips Green Flagship
- This product is RoHS compliant
- This product is covered by WEEE

Application

- Suitable for use in applications where maintenance costs (high ceilings, difficult to reach) and disruptive costs are high (stopping of production process, closure of tunnels), or where lamp failure is not acceptable for e. g. safety reasons: tunnels, process, food and petrochemical industries



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	589.8	594.5	596.9	604.0	28
2	1199.4	1204.1	1206.5	1213.6	28
3	1500.0	1504.7	1507.1	1514.2	28



MASTER TL-D Xtreme G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
18W/840	85	4,000	A	1,350	66,000	79,000	1	ISL / 25	25	18840XTREME	54496440	yes
18W/865	85	6,500	A	1,250	66,000	79,000	1	ISL / 25	25	18865XTREME	89275140	yes
36W/840	85	4,000	A	3,250	66,000	79,000	2	ISL / 25	25	36840XTREME	55868840	yes
36W/865	85	6,500	A	3,150	66,000	79,000	2	ISL / 25	25	36865XTREME	89277540	yes
58W/840	85	4,000	A	5,150	66,000	79,000	3	ISL / 25	25	58840XTREME	55886240	yes
58W/865	85	6,500	A	5,000	66,000	79,000	3	ISL / 25	25	58865XTREME	89279940	yes

MASTER TL-D Xtreme Polar



Product Features

- Improved lumen output in low ambient temperatures
- The same reliable, long lifetime performance as regular MASTER TL-D Xtra and Xtreme
- Robust lamp construction due to strong, temperature-resistant assembly kit
- 10 pcs. packaging

Product Benefits

- High lighting level in low ambient temperature applications compared with other fluorescent tubes
- Strong reduction in maintenance costs due to high reliability and long lifetime

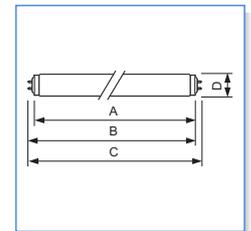
- Fully temperature-resistant in all conditions; no temperature-related relamping problems
- Supports end-user sustainability programs (low mercury level and low waste due to long lifetime)

Environment

- Good environmental choice because of highest energy efficiency in colder conditions (<10°C), long reliable life (380% better than T8 standard), low waste (only 1 lamp compared with 4 T8 standard), lowest mercury content and lead-free
- This product is a Philips Green Flagship
- This product is RoHS compliant
- This product is covered by WEEE

Application

- Indoor: cold stores and other refrigerated areas
- Outdoor: petrol stations, car parks, shipping docks, petrochemical plants, sign lighting, tunnels



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	1199.4	1204.1	1206.5	1213.6	40.5
2	1500.0	1504.7	1507.1	1514.2	40.5

MASTER TL-D Xtreme Polar G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration		National Order Code	Ordering number 8711500...	
36W/840	85	4,000	A	3,250	66,000	79,000	1	ISL / 10	10	36840XTREMPOLAR	89311625	yes
58W/840	85	4,000	A	5,150	66,000	79,000	2	ISL / 10	10	58840XTREMPOLAR	89323925	yes

MASTER TL-D Xtreme Secura



- Low mercury dose for a long-life lamp (5 mg)
- Fully recyclable lamp technology
- End-cap has an x-shaped green bottom plate to distinguish the lamp from other fluorescent lamps
- Strong, temperature-resistant protective Secura coating based on FEP (Teflon)
- Coating lifetime is identical to the lifetime of the lamp

Product Benefits

- Protective Teflon coating keeps glass and lamp components together in case of accidental breakage; allows use in open luminaires in food & beverages industry
- Easy identification in audit situations by blue ring at one end
- Special fluorescent coating gives good colour rendering

Product Description

- Low-pressure mercury discharge lamp with a tubular 26 mm envelope and a clear protective coating

Product Features

- Significant reduction of early failures based on new X-technology
- Extremely long life and high reliability
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology

- Extremely long lifetime and reduced early failures mean lower maintenance workload and costs, and facilitate change from spot to group replacement
- Reduced waste and disposal costs at end-of-life
- Compliant with HACCP regulations and supports HACCP certification

Environment

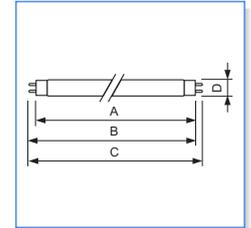
- Good environmental choice because of long reliable life (380% better than T8 standard), low waste (only 1 lamp compared to 4 T8 standard), lowest mercury content and lead-free
- This product is a Philips Green Flagship
- This product is RoHS compliant
- This product is covered by WEEE

Application

- Food & beverages and pharmaceuticals industry: factories, distribution centres, retail outlets; locations where maintenance and/or process disruption costs are high (high ceilings, difficult access)

Warnings and Safety

- No dimming below 30% should be applied for achieving lifetimes as published for 100% operations
- The longest lifetime to be achieved with Philips HF Xtreme gear
- Recommended use in combination with self-stopping lamp control system



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	589.8	594.5	596.9	604.0	28
2	1199.4	1204.1	1206.5	1213.6	28

MASTER TL-D Xtreme Secura G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration	National Order Code	Ordering number 871 1500...	
18W/840	85	4,000	A	1,300	66,000	79,000	1	ISL / 25 25	18840XTREMESEC	88971340	yes
36W/840	85	4,000	A	3,250	66,000	79,000	2	ISL / 25 25	36840XTREMESEC	88979940	yes

MASTER TL-D 90 De Luxe



Product Features

- High-quality fluorescent coating
- Available in various colour designations

Product Benefits

- Very good colour rendering. Making colours appear rich, deep and enhanced as they do in daylight, making products appear more attractive
- 25% More light than competition
- Enabling customer to switch to 900-colours with (almost) no decrease of light level
- Enabling customers (in certain segments) to respect the new European standard for lighting of indoor workplaces (CEN 12464-1), without investing in new luminaires

Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

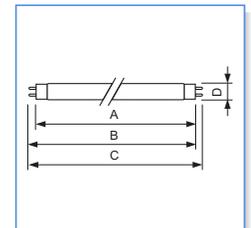
- Attractive packaging configuration
- Direct retrofit for all Standard and Super 80 TL-D lamps operating on conventional or HF gear
- Possible to create atmospheres from warm white to cool daylight

Environment

- This product is RoHS compliant
- This product is covered by WEEE

Application

- Used in applications where good colour rendering is crucial, such as shops (flower, fashion, department, etc.), hairdresser, museums, hospitals, etc



Dim. no.	A max.	B min.	B max.	C max.	D max.
1	589.8	594.5	596.9	604.0	28
2	1199.4	1204.1	1206.5	1213.6	28
3	1500.0	1504.7	1507.1	1514.2	28

MASTER TL-D 90 De Luxe G13

Wattage/ Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration	National Order Code	Ordering number 871 1500...	
18W/930	91	3,000	B	1,200	17,000	20,000	1	SLV / 10 10	18930DLP	88837225	yes
18W/940	91	4,000	B	1,200	17,000	20,000	1	SLV / 10 10	18940DLP	88839625	yes
18W/950	92	5,300	B	1,150	17,000	20,000	1	SLV / 10 10	18950DLP	88843325	yes
18W/965	93	6,500	B	1,150	17,000	20,000	1	SLV / 10 10	18965DLP	88846425	yes
36W/930	91	3,000	B	2,800	17,000	20,000	2	SLV / 10 10	36930DLP	88856325	yes
36W/940	91	4,000	B	2,800	17,000	20,000	2	SLV / 10 10	36940DLP	88858725	yes
36W/950	92	5,300	B	2,800	17,000	20,000	2	SLV / 10 10	36950DLP	88860025	yes
36W/965	93	6,500	B	2,800	17,000	20,000	2	SLV / 10 10	36965DLP	88862425	yes
58W/940	91	4,000	B	4,600	17,000	20,000	3	SLV / 10 10	58940DLP	88869325	yes
58W/950	92	5,300	B	4,550	17,000	20,000	3	SLV / 10 10	58950DLP	88871625	yes
58W/965	93	6,500	B	4,550	17,000	20,000	3	SLV / 10 10	58965DLP	88873025	yes

MASTER TL-D 90 Graphica



Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

Product Features

- High-quality fluorescent coating
- Available in two colour designations

Product Benefits

- Excellent colour rendering. Making representation of colours extremely realistic
- Lamp developed to answer the needs of the demanding graphical industry (consistent with the strict standards for the graphical industry defined in EN I2464)

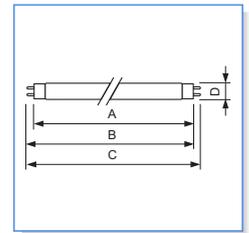
- Very accurate colour point
- Attractive packaging configuration
- Direct retrofit for all Standard and Super 80 TL-D lamps operating on conventional or electronic gear
- Choice of daylight and cool daylight colours

Environment

- This product is RoHS compliant
- This product is covered by WEEE

Application

- Used in applications where excellent colour rendering is crucial, such as the graphical industry, printing industry, photo shops, hospitals, etc.



Dim. no.	A		B		D
	max.	min.	max.	max.	
1	589.8	594.5	596.9	604.0	28
2	1199.4	1204.1	1206.5	1213.6	28
3	1500.0	1504.7	1507.1	1514.2	28



MASTER TL-D 90 Graphica G13

Wattage/Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Luminous Flux EM 25°C, Rated (lm)	Life to 10% fail Preheat EL,3h (h)	Life to 50% fail Preheat EL,3h (h)	Dim. no.	Packing type/ Packing configuration 	National Order Code	Ordering number 8711500...	
18W/950	97	5,300	B	950	17,000	20,000	1	ISL / 10 10	18950GP	88850125	yes
18W/965	98	6,500	B	930	17,000	20,000	1	ISL / 10 10	18965GP	88852525	yes
36W/950	97	5,300	B	2,340	17,000	20,000	2	ISL / 10 10	36950GP	88864825	yes
36W/965	98	6,500	B	2,100	17,000	20,000	2	ISL / 10 10	36965GP	88836525	yes
58W/950	97	5,300	B	3,670	17,000	20,000	3	ISL / 10 10	58950GP	88875425	yes
58W/965	98	6,500	B	3,350	17,000	20,000	3	ISL / 10 10	58965GP	88877825	yes

TL TL-X XL



Product Description

- Single-pin low-pressure mercury discharge lamps with a tubular 38 mm envelope

Product Features

- 40 W and 65 W lamps with internal ignition strip for instant start, non-preheat, starterless operation

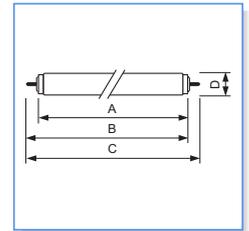
Product Benefits

- In combination with a special lampholder all possible sparking effects during ignition are eliminated

- Extended lifetime compared with standard TL lamps

Application

- Used in flameproof and increased-safety luminaires for both indoor and outdoor applications
- Used in applications like petro-chemical industry, offshore, mines and any locations where traces of explosive gases may be found



Dim. no.	A		B		D
	max.	min.	max.	max.	
1	574.0	589.0	592.5	611.0	40.5
2	1183.5	1198.5	1202.0	1220.5	40.5
3	1484.1	1499.1	1502.6	1521.1	40.5

TL-X - Long Life Fa6

Wattage/Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)		Lamp Luminous Flux EM (lm)	Life to 10% failures EM (h)	Life to 50% failures EM (h)	Dim. no.	Packing type/ Packing configuration 	National Order Code	Ordering number 8711500...	
20W/33-640	63	4,100	B	940	21,000	26,000	1	ISL / 25 25	TLX2033XL	26135940	yes
40W/33-640	63	4,100	B	2,300	21,000	26,000	2	ISL / 25 25	TLX4033XL	26137340	yes
65W/33-640	63	4,100	B	4,400	21,000	26,000	3	ISL / 25 25	TLX6533XL	26139740	yes

TL Miniature MASTER TL Mini Super 80



Product Features

- 16 mm diameter tubes with highly efficient 3-band fluorescent coating

Product Benefits

- Good colour rendering
- High efficacy, both initially and during lamp lifetime, with high lumen maintenance compared with standard lamps
- Small lamp dimensions enables system miniaturisation

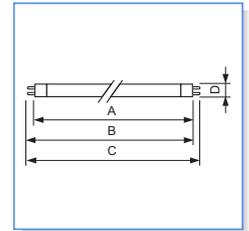
Environment

- Best environmental choice because of highest energy efficiency available for fluorescent lighting. Lowest CO₂ emission compared to any other comparable lightsource. 100% lead free

- This product range is RoHS compliant per I-I-2006
- This product range is covered by WEEE

Application

- Ideal for applications where space is limited but requiring better colour rendering and efficacy than standard colours:
 - hall and staircase lighting in apartment buildings
 - built into furniture, mirror and cupboard lighting
 - emergency lighting



Dim. no.	A max.	B min.	C max.	D max.
1	288.3	293.0	295.4	302.5
2	516.9	521.6	524.0	531.1

Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

MASTER TL Mini Super 80 G5

Wattage/Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)	Lamp Luminous Flux EM (lm)	Life to 10% fail Preheat EL, 3h (h)	Life to 50% fail Preheat EL, 3h (h)	Dim. no.	Packing type/Packing configuration	National Order Code	Ordering number 871 1500...	
8W/840	85	4,000	470	5,000	10,000	1	1FM / 10X25CC	250	884	71642227
13W/840	85	4,000	1,000	4,000	8,000	2	1FM / 10X25CC	250	1384	71685927

TL Mini Standard Colours



Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

Product Features

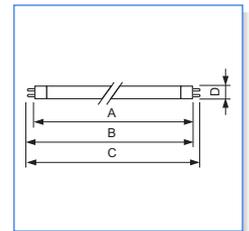
- 16 mm diameter tubes with moderate colour rendering

Product Benefits

- Creates atmospheres from warm white to cool daylight

Application

- Ideal for applications where space is limited and colour rendering is not important
- Orientation lighting
- Emergency lighting
- Possibility for operation on low-voltage DC supply



Dim. no.	A max.	B min.	C max.	D max.
1	212.1	216.8	219.2	226.3
2	288.3	293.0	295.4	302.5
3	516.9	521.6	524.0	531.1

TL Mini G5

Wattage/Colour Code	Colour Rendering Index (R _a)	Colour Temperature (K)	Lamp Luminous Flux EM (lm)	Life to 10% fail Preheat EL, 3h (h)	Life to 50% fail Preheat EL, 3h (h)	Dim. no.	Packing type/Packing configuration	National Order Code	Ordering number 871 1500...	
6W/33-640	60	4,100	260	5,000	10,000	1	1FM / 10X25CC	250	633	71583827
8W/33-640	60	4,100	410	5,000	10,000	2	1FM / 10X25CC	250	833	70473327
13W/33-640	60	4,100	930	4,000	8,000	3	1FM / 10X25CC	250	1333	70475727

Spectral power distribution

