



# Simply energy saving

## MASTER TL-D Eco

The MASTER TL-D Eco lamp offers the same light output as a MASTER TL-D Super 80 lamp, while using less energy, thanks to the use of specific phosphors and a special gas filling. Application areas are schools, offices, governmental buildings and healthcare environments.

### 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

### Features

- The only T8 fluorescent lamp that saves more than 10% of energy in existing luminaires with electromagnetic gear
- Lower power savings with electronic gear depending on type of gear (current- or power-controlled)
- Can be directly retrofitted into existing fluorescent fittings operating on electromagnetic or electronic gear in indoor applications
- Uses the latest highly efficient phosphors and special filling gas
- High-quality lighting with good color rendering (CRI>80)
- Light output comparable to other TL-D Super 80 colors
- Lumen maintenance and lifetime the same as other TL-D Super 80 colors
- Dimmable



**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

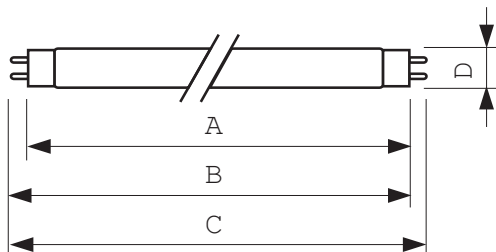
temperature will not be the required 25-35 °C, but roomtemperature)- in open luminaires/battens very close to air conditioning outlets or cold air flows- in space above freezers (temperature may easily drop below 20 °C)- in combination with VRUs (voltage reduction units)

Related products



G13, T8

Dimensional drawing



G13, T8

Product	A (Max)	B (Min)	B (Max)	C (Max)	D (Max)
TL-D Eco 32W/830	1199.4	1204.1	1206.5	1213.6	28
TL-D Eco 32W/840	1199.4	1204.1	1206.5	1213.6	28
TL-D Eco 32W/865	1199.4	1204.1	1206.5	1213.6	28
TL-D Eco 51W/830	1500.0	1504.7	1507.1	1514.2	28
TL-D Eco 51W/840	1500.0	1504.7	1507.1	1514.2	28
TL-D Eco 51W/865	1500.0	1504.7	1507.1	1514.2	28
TL-D Eco 16W/830	589.8	594.5	596.9	604.0	28
TL-D Eco 16W/840	589.8	594.5	596.9	604.0	28
TL-D Eco 16W/865	589.8	594.5	596.9	604.0	28
TL-D Eco 63W/830	1763.8	1768.5	1770.9	1778.0	28

**General Characteristics (1/2)**

Order code	Full product name	Bulb	Cap-Base	Life to 50% fail-ures EM	Life to 50% fail Preheat EL,3h	Life to 50% fail Nonpreh EL,3h	Life to 10% fail Nonpreh EL,3h	Life to 10% fail Preheat EL,3h	Life to 10% fail-ures EM	LSF EM 20000h Rated,3h cycle	LSF EM 16000h Rated,3h cycle
927921183023	MASTER TL-D Eco 32W/830 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927921184023	MASTER TL-D Eco 32W/840 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927921186523	MASTER TL-D Eco 32W/865 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33

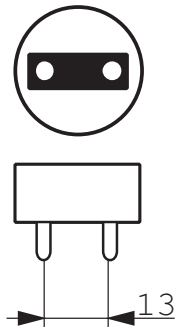
Order code	Full product name	Bulb	Cap-Base	Life to 50% fail-ures EM	Life to 50% fail Preheat EL,3h	Life to 50% fail Nonpreh EL,3h	Life to 10% fail Nonpreh EL,3h	Life to 10% fail Preheat EL,3h	Life to 10% fail-ures EM	LSF EM 20000h Rated,3h cycle	LSF EM 16000h Rated,3h cycle
927922183023	MASTER TL-D Eco 51W/830 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927922184023	MASTER TL-D Eco 51W/840 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927922186523	MASTER TL-D Eco 51W/865 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927922883015	MASTER TL-D Eco 16W/830 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927922884015	MASTER TL-D Eco 16W/840 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927922886515	MASTER TL-D Eco 16W/865 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33
927922983015	MASTER TL-D Eco 63W/830 1SL	T8	G13	15000	20000	12000	10000	17000	12000	2	33

### General Characteristics (2/2)

Order code	Full product name	LSF EM 12000h Rated, 3h cycle	LSF EM 8000h Rated, 3h cycle	LSF EM 6000h Rated, 3h cycle	LSF EM 4000h Rated, 3h cycle	LSF EM 2000h Rated, 3h cycle
927921183023	MASTER TL-D Eco 32W/830 1SL	89	99	99	99	99
927921184023	MASTER TL-D Eco 32W/840 1SL	89	99	99	99	99
927921186523	MASTER TL-D Eco 32W/865 1SL	89	99	99	99	99
927922183023	MASTER TL-D Eco 51W/830 1SL	89	99	99	99	99
927922184023	MASTER TL-D Eco 51W/840 1SL	89	99	99	99	99
927922186523	MASTER TL-D Eco 51W/865 1SL	89	99	99	99	99

Order code	Full product name	LSF EM 12000h Rated, 3h cycle	LSF EM 8000h Rated, 3h cycle	LSF EM 6000h Rated, 3h cycle	LSF EM 4000h Rated, 3h cycle	LSF EM 2000h Rated, 3h cycle
927922883015	MASTER TL-D Eco 16W/830 1SL	89	99	99	99	99
927922884015	MASTER TL-D Eco 16W/840 1SL	89	99	99	99	99
927922886515	MASTER TL-D Eco 16W/865 1SL	89	99	99	99	99
927922983015	MASTER TL-D Eco 63W/830 1SL	89	99	99	99	99

Installation diagrams



G13

Light Technical Characteristics (1/2)

Order code	Full product name	Color Code	Color Designation (text)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Color Rendering Index	Color Temperature	Luminous Flux Lamp EM 30°C	Lum Efficacy Rated EM 25°C	LLMF EM 20000h Rated	LLMF EM 16000h Rated
927921183023	MASTER TL-D Eco 32W/830 1SL	830	Warm White	440	410	85	3000	3000	82	90	91
927921184023	MASTER TL-D Eco 32W/840 1SL	840	Cool White	381	379	85	4000	3000	82	90	91
927921186523	MASTER TL-D Eco 32W/865 1SL	865	Cool Daylight	316	340	85	6500	2850	79	90	91
927922183023	MASTER TL-D Eco 51W/830 1SL	830	Warm White	439	409	85	3000	4800	89	90	91
927922184023	MASTER TL-D Eco 51W/840 1SL	840	Cool White	382	385	85	4000	4800	89	90	91
927922186523	MASTER TL-D Eco 51W/865 1SL	865	Cool Daylight	315	339	85	6500	4470	84	90	91
927922883015	MASTER TL-D Eco 16W/830 1SL	830	Warm White	438	404	85	3000	1300	75	90	91
927922884015	MASTER TL-D Eco 16W/840 1SL	840	Cool White	384	385	85	4000	1300	75	90	91
927922886515	MASTER TL-D Eco 16W/865 1SL	865	Cool Daylight	314	338	85	6500	1225	72	90	91
927922983015	MASTER TL-D Eco 63W/830 1SL	830	Warm White	440	408	85	3000	5600	85	90	91

Light Technical Characteristics (2/2)

Order code	Full product name	LLMF EM 12000h Rated	LLMF EM 8000h Rated	LLMF EM 6000h Rated	LLMF EM 4000h Rated	LLMF EM 2000h Rated	Luminous Flux EM 25°C, Rated	Luminous Flux EM 25°C, Nominal	Design Temperature
927921183023	MASTER TL-D Eco 32W/830 1SL	92	93	94	95	96	2650	2650	30
927921184023	MASTER TL-D Eco 32W/840 1SL	92	93	94	95	96	2650	2650	30
927921186523	MASTER TL-D Eco 32W/865 1SL	92	93	94	95	96	2550	2550	30

Order code	Full product name	LLMF EM 12000h Rated	LLMF EM 8000h Rated	LLMF EM 6000h Rated	LLMF EM 4000h Rated	LLMF EM 2000h Rated	Luminous Flux EM 25°C, Rated	Luminous Flux EM 25°C, Nominal	Design Tempera- ture
927922183023	MASTER TL-D Eco 51W/830 1SL	92	93	94	95	96	4550	4550	30
927922184023	MASTER TL-D Eco 51W/840 1SL	92	93	94	95	96	4550	4550	30
927922186523	MASTER TL-D Eco 51W/865 1SL	92	93	94	95	96	4300	4300	30
927922883015	MASTER TL-D Eco 16W/830 1SL	92	93	94	95	96	1175	1175	30
927922884015	MASTER TL-D Eco 16W/840 1SL	92	93	94	95	96	1175	1175	30
927922886515	MASTER TL-D Eco 16W/865 1SL	92	93	94	95	96	1125	1125	30
927922983015	MASTER TL-D Eco 63W/830 1SL	92	93	94	95	96	5250	5250	30

### Electrical Characteristics

Order code	Full product name	Lamp Wattage	Dimmable	Lamp Current EM 25°C	Lamp Wattage EM 25°C, Rated	Lamp Wattage EM 25°C, Nominal	Lamp Voltage EM 25°C
927921183023	MASTER TL-D Eco 32W/830 1SL	32	Yes	0.448	32.2	32	92
927921184023	MASTER TL-D Eco 32W/840 1SL	32	Yes	0.448	32.2	32	92
927921186523	MASTER TL-D Eco 32W/865 1SL	32	Yes	0.448	32.2	32	92
927922183023	MASTER TL-D Eco 51W/830 1SL	51	Yes	0.700	51.4	51	95
927922184023	MASTER TL-D Eco 51W/840 1SL	51	Yes	0.700	51.4	51	95
927922186523	MASTER TL-D Eco 51W/865 1SL	51	Yes	0.700	51.4	51	95
927922883015	MASTER TL-D Eco 16W/830 1SL	16	Yes	0.380	15.7	16	51
927922884015	MASTER TL-D Eco 16W/840 1SL	16	Yes	0.380	15.7	16	51
927922886515	MASTER TL-D Eco 16W/865 1SL	16	Yes	0.380	15.7	16	51
927922983015	MASTER TL-D Eco 63W/830 1SL	63	Yes	0.745	61.9	63	110

### Environmental Characteristics

Order code	Full product name	Energy Effi- ciency Label (EEL)	Mercury (Hg) Content
927921183023	MASTER TL-D Eco 32W/830 1SL	A	2.0
927921184023	MASTER TL-D Eco 32W/840 1SL	A	2.0
927921186523	MASTER TL-D Eco 32W/865 1SL	A	2.0
927922183023	MASTER TL-D Eco 51W/830 1SL	A	2.0
927922184023	MASTER TL-D Eco 51W/840 1SL	A	2.0
927922186523	MASTER TL-D Eco 51W/865 1SL	A	2.0

Order code	Full product name	Energy Effi- ciency Label (EEL)	Mercury (Hg) Content
927922883015	MASTER TL-D Eco 16W/830 1SL	A	2.0
927922884015	MASTER TL-D Eco 16W/840 1SL	A	2.0
927922886515	MASTER TL-D Eco 16W/865 1SL	A	2.0
927922983015	MASTER TL-D Eco 63W/830 1SL	A	3.0



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