



# The new generation of energy saving tube lighting

## MASTER LEDtube EM/Mains

The Philips MASTER LEDtube integrates a LED light source into a traditional fluorescent form factor. Its unique design creates a perfectly uniform visual appearance which cannot be distinguished from traditional fluorescent. This product is the ideal solution for up lighting in general lighting applications.

### Benefits

- Reduced operational cost thanks to lower energy consumption
- Lower maintenance cost thanks to 2-3 times longer lifetime than normal fluorescent tubes
- Fastest and easiest way to upgrade existing luminaire to LED technology; 100%-safe installation process

### Features

- Only 50% energy consumption compared to fluorescent tubes
- Extra-long life of 40,000 hours
- Retrofit to existing T8 lamps on EM or HF electronic gear
- Full safety features and EM Protector safety device
- No mercury

### Application

- Car parks
- Warehouses
- Transport and distribution areas
- Front & back of house retail & hospitality

### Warnings and Safety

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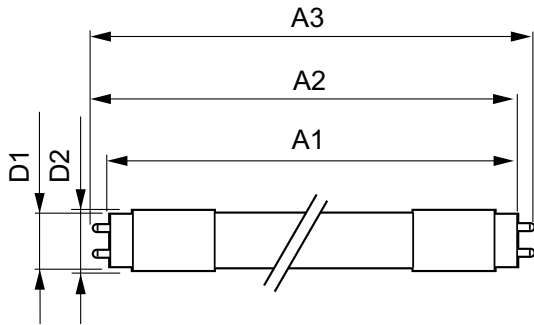
# MASTER LEDtube EM/Mains

## Versions

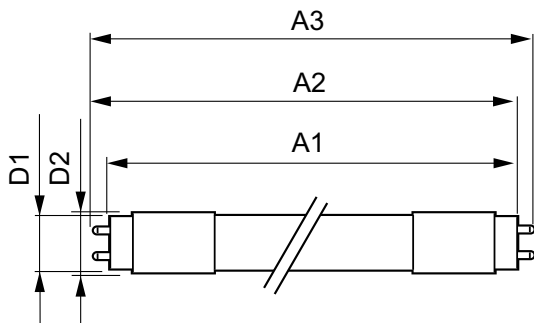


# MASTER LEDtube EM/Mains

## Dimensional drawing



Product	D1	D2	A1	A2	A3
MASTER LEDtube 1800mm 25W 840 T8 ROT	25.68 mm	28 mm	1762.5 mm	1770 mm	1776.7 mm
MASTER LEDtube 600mm HO 8W865 T8	25.78 mm	28 mm	588.5 mm	595.5 mm	602.5 mm
MASTER LEDtube 600mm HO 8W830 T8	25.78 mm	28 mm	588.5 mm	595.5 mm	602.5 mm
MASTER LEDtube 900mm HO 12W 865 T8	25.78 mm	28 mm	893.3 mm	900.4 mm	907.5 mm
MASTER LEDtube 900mm HO 12W 840 T8	25.78 mm	28 mm	893.3 mm	900.4 mm	907.5 mm
MASTER LEDtube 600mm HO 8W840 T8	25.78 mm	28 mm	588.5 mm	595.5 mm	602.5 mm
MASTER LEDtube 1050mm 16W 830 T8	25.8 mm	28 mm	1045.8 mm	1052.9 mm	1060 mm
MASTER LEDtube 1200mm UO 14.7W 830 T8	25.8 mm	28 mm	1198.2 mm	1205.3 mm	1212.4 mm
MASTER LEDtube 1200mm UO 14.7W 840 T8	25.8 mm	28 mm	1198.2 mm	1205.3 mm	1212.4 mm
MASTER LEDtube 1500mm UO 21.7W 830 T8	25.8 mm	28 mm	1498.8 mm	1505.9 mm	1513 mm
MASTER LEDtube 1500mm UO 21.7W 865 T8	25.8 mm	28 mm	1498.8 mm	1505.9 mm	1513 mm
MASTER LEDtube 1200mm UO 14.7W 865 T8	25.8 mm	28 mm	1198.2 mm	1205.3 mm	1212.4 mm
MASTER LEDtube 1500mm UO 21.7W 840 T8	25.8 mm	28 mm	1498.8 mm	1505.9 mm	1513 mm



Product	D1	D2	A1	A2	A3
MASTER LEDtube 1200mm HO 12.5W 865 T8	25.8 mm	28 mm	1198.2 mm	1205.3 mm	1212.4 mm
MASTER LEDtube 1200mm HO 12.5W 840 T8	25.8 mm	28 mm	1198.2 mm	1205.3 mm	1212.4 mm
MASTER LEDtube 1200mm HO 12.5W 830 T8	25.8 mm	28 mm	1198.2 mm	1205.3 mm	1212.4 mm
MASTER LEDtube 1500mm HO 18.2W 865 T8	25.8 mm	28 mm	1498.8 mm	1505.9 mm	1513 mm
MASTER LEDtube 1500mm HO 18.2W 840 T8	25.8 mm	28 mm	1498.8 mm	1505.9 mm	1513 mm
MASTER LEDtube 1500mm HO 18.2W 830 T8	25.8 mm	28 mm	1498.8 mm	1505.9 mm	1513 mm
MASTER LEDtube 1050mm 16W 840 T8	25.8 mm	28 mm	1045.8 mm	1052.9 mm	1060 mm

# MASTER LEDtube EM/Mains

## Dimensional drawing



Product	D1	D2	C1
MASTER LEDtube Starter EMP GenII OP	3 mm	21.5 mm	34.5 mm

## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/ 1000 h
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	25 kWh
68708600	MASTER LEDtube 900mm HO 12W 840 T8	12 kWh
68710900	MASTER LEDtube 900mm HO 12W 865 T8	12 kWh
69747400	MASTER LEDtube 600mm HO 8W830 T8	8 kWh
69749800	MASTER LEDtube 600mm HO 8W840 T8	8 kWh
69751100	MASTER LEDtube 600mm HO 8W865 T8	8 kWh
72855000	MASTER LEDtube 1050mm 16W 830 T8	16 kWh
81965400	MASTER LEDtube Starter EMP GenII OP	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	13 kWh
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	13 kWh
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8	13 kWh

Order Code	Full Product Name	Energy Consumption kWh/ 1000 h
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8	19 kWh
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8	19 kWh
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8	19 kWh
61602100	MASTER LEDtube 1050mm 16W 840 T8	16 kWh
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8	15 kWh
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8	15 kWh
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8	15 kWh
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8	22 kWh
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8	22 kWh
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8	22 kWh

## Controls and Dimming

Order Code	Full Product Name	Dimmable
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	No
68708600	MASTER LEDtube 900mm HO 12W 840 T8	No
68710900	MASTER LEDtube 900mm HO 12W 865 T8	No
69747400	MASTER LEDtube 600mm HO 8W830 T8	No
69749800	MASTER LEDtube 600mm HO 8W840 T8	No
69751100	MASTER LEDtube 600mm HO 8W865 T8	No
72855000	MASTER LEDtube 1050mm 16W 830 T8	No
81965400	MASTER LEDtube Starter EMP GenII OP	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	No
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	No
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8	No

Order Code	Full Product Name	Dimmable
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8	No
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8	No
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8	No
61602100	MASTER LEDtube 1050mm 16W 840 T8	No
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8	No
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8	No
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8	No
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8	No
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8	No
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8	No

## Operating and Electrical

## MASTER LEDtube EM/Mains

Order Code	Full Product Name	Input Frequency	Voltage (Nom)	Power (Rated) (Nom)	Starting Time (Nom)
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	50 to 60 Hz	220-240 V	25 W	0.5 s
68708600	MASTER LEDtube 900mm HO 12W 840 T8	50 to 60 Hz	220-240 V	12 W	0.5 s
68710900	MASTER LEDtube 900mm HO 12W 865 T8	50 to 60 Hz	220-240 V	12 W	0.5 s
69747400	MASTER LEDtube 600mm HO 8W830 T8	50 to 60 Hz	220-240 V	8 W	0.5 s
69749800	MASTER LEDtube 600mm HO 8W840 T8	50 to 60 Hz	220-240 V	8 W	0.5 s
69751100	MASTER LEDtube 600mm HO 8W865 T8	50 to 60 Hz	220-240 V	8 W	0.5 s
72855000	MASTER LEDtube 1050mm 16W 830 T8	50 to 60 Hz	220-240 V	16 W	0.5 s
81965400	MASTER LEDtube Starter EMP GenII OP	-	-	-	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	50 to 60 Hz	220-240 V	12.5 W	0.5 s
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	50 to 60 Hz	220-240 V	12.5 W	0.5 s
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8	50 to 60 Hz	220-240 V	12.5 W	0.5 s

Order Code	Full Product Name	Input Frequency	Voltage (Nom)	Power (Rated) (Nom)	Starting Time (Nom)
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8	50 to 60 Hz	220-240 V	18.2 W	0.5 s
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8	50 to 60 Hz	220-240 V	18.2 W	0.5 s
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8	50 to 60 Hz	220-240 V	18.2 W	0.5 s
61602100	MASTER LEDtube 1050mm 16W 840 T8	50 to 60 Hz	220-240 V	16 W	0.5 s
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8	50 to 60 Hz	220-240 V	14.7 W	0.5 s
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8	50 to 60 Hz	220-240 V	14.7 W	0.5 s
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8	50 to 60 Hz	220-240 V	14.7 W	0.5 s
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8	50 to 60 Hz	220-240 V	21.7 W	0.5 s
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8	50 to 60 Hz	220-240 V	21.7 W	0.5 s
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8	50 to 60 Hz	220-240 V	21.7 W	0.5 s

### General Information

Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Switching Cycle
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	G13	50000 h	50,000X
68708600	MASTER LEDtube 900mm HO 12W 840 T8	G13 ROT (Rotating)	70000 h	200,000X
68710900	MASTER LEDtube 900mm HO 12W 865 T8	G13 ROT (Rotating)	70000 h	200,000X
69747400	MASTER LEDtube 600mm HO 8W830 T8	G13 ROT (Rotating)	60000 h	200,000X
69749800	MASTER LEDtube 600mm HO 8W840 T8	G13 ROT (Rotating)	60000 h	200,000X

Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Switching Cycle
69751100	MASTER LEDtube 600mm HO 8W865 T8	G13 ROT (Rotating)	60000 h	200,000X
72855000	MASTER LEDtube 1050mm 16W 830 T8	G13 ROT (Rotating)	70000 h	200,000X
81965400	MASTER LEDtube Starter EMP GenII OP	-	-	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	G13 ROT (Rotating)	70000 h	200,000X
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	G13 ROT (Rotating)	70000 h	200,000X

## MASTER LEDtube EM/Mains

Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Switching Cycle
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8 (Rotating)	G13 ROT	70000 h	200,000X
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8 (Rotating)	G13 ROT	70000 h	200,000X
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8 (Rotating)	G13 ROT	70000 h	200,000X
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8 (Rotating)	G13 ROT	70000 h	200,000X
61602100	MASTER LEDtube 1050mm 16W 840 T8 (Rotating)	G13 ROT	70000 h	200,000X

Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Switching Cycle
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8 (Rotating)	G13 ROT	70000 h	200,000X
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8 (Rotating)	G13 ROT	70000 h	200,000X
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8 (Rotating)	G13 ROT	70000 h	200,000X
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8 (Rotating)	G13 ROT	70000 h	200,000X
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8 (Rotating)	G13 ROT	70000 h	200,000X
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8 (Rotating)	G13 ROT	70000 h	200,000X

### Light Technical

Order Code	Full Product Name	Beam Angle (Nom)	Correlated Colour		Colour	Llmf At End Of	
			Colour Code	Temperature (Nom)	Rendering Index (Nom)	Nominal Lifetime (Nom)	Luminous Flux (Nom)
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	160 °	840	4000 K	83	70 %	3700 lm
68708600	MASTER LEDtube 900mm HO 12W 840 T8	160 °	840	4000 K	80	70 %	1575 lm
68710900	MASTER LEDtube 900mm HO 12W 865 T8	160 °	865	6500 K	80	70 %	1575 lm
69747400	MASTER LEDtube 600mm HO 8W830 T8	160 °	830	3000 K	83	70 %	1000 lm
69749800	MASTER LEDtube 600mm HO 8W840 T8	160 °	840	4000 K	83	70 %	1050 lm
69751100	MASTER LEDtube 600mm HO 8W865 T8	160 °	865	6500 K	83	70 %	1050 lm
72855000	MASTER LEDtube 1050mm 16W 830 T8	160 °	830	3000 K	80	70 %	2300 lm
81965400	MASTER LEDtube Starter EMP GenII OP	-	-	-	-	-	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	160 °	830	3000 K	80	70 %	2000 lm
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	160 °	840	4000 K	80	70 %	2100 lm
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8	160 °	865	6500 K	80	70 %	2100 lm
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8	160 °	830	3000 K	80	70 %	2900 lm
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8	160 °	840	4000 K	80	70 %	3100 lm
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8	160 °	865	6500 K	80	70 %	3100 lm
61602100	MASTER LEDtube 1050mm 16W 840 T8	160 °	840	4000 K	80	70 %	2500 lm
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8	160 °	830	3000 K	80	70 %	2300 lm
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8	160 °	840	4000 K	80	70 %	2500 lm
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8	160 °	865	6500 K	80	70 %	2500 lm
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8	160 °	830	3000 K	80	70 %	3400 lm
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8	160 °	840	4000 K	80	70 %	3700 lm
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8	160 °	865	6500 K	80	70 %	3700 lm

### Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb Shape
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	-	Tube, double-ended
68708600	MASTER LEDtube 900mm HO 12W 840 T8	Frosted	Tube, double-ended
68710900	MASTER LEDtube 900mm HO 12W 865 T8	Frosted	Tube, double-ended

Order Code	Full Product Name	Bulb Finish	Bulb Shape
69747400	MASTER LEDtube 600mm HO 8W830 T8	Frosted	Tube, double-ended
69749800	MASTER LEDtube 600mm HO 8W840 T8	Frosted	Tube, double-ended
69751100	MASTER LEDtube 600mm HO 8W865 T8	Frosted	Tube, double-ended

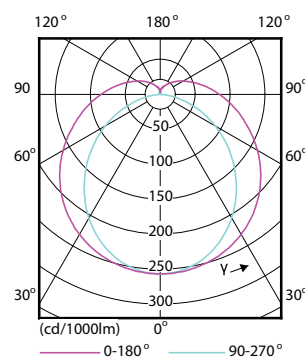
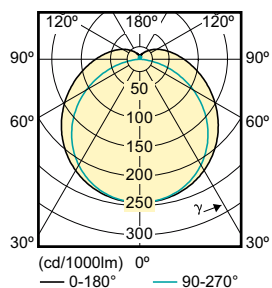
# MASTER LEDtube EM/Mains

Order Code	Full Product Name	Bulb Finish	Bulb Shape
72855000	MASTER LEDtube 1050mm 16W 830 T8	Frosted	Tube, double-ended
81965400	MASTER LEDtube Starter EMP GenII OP	-	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	Frosted	Tube, double-ended
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	Frosted	Tube, double-ended
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8	Frosted	Tube, double-ended
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8	Frosted	Tube, double-ended
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8	Frosted	Tube, double-ended
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8	Frosted	Tube, double-ended

Order Code	Full Product Name	Bulb Finish	Bulb Shape
61602100	MASTER LEDtube 1050mm 16W 840 T8	Frosted	Tube, double-ended
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8	Frosted	Tube, double-ended
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8	Frosted	Tube, double-ended
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8	Frosted	Tube, double-ended
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8	Frosted	Tube, double-ended
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8	Frosted	Tube, double-ended
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8	Frosted	Tube, double-ended

## Temperature

Order Code	Full Product Name	T-Ambient (Max)	T-Ambient (Min)	T-Case Maximum (Nom)	T-Storage (Max)	T-Storage (Min)
48037300	MASTER LEDtube 1800mm 25W 840 T8 ROT	30 °C	-5 °C	61 °C	65 °C	-40 °C
68708600	MASTER LEDtube 900mm HO 12W 840 T8	45 °C	-20 °C	50 °C	65 °C	-40 °C
68710900	MASTER LEDtube 900mm HO 12W 865 T8	45 °C	-20 °C	50 °C	65 °C	-40 °C
69747400	MASTER LEDtube 600mm HO 8W830 T8	35 °C	-20 °C	50 °C	65 °C	-40 °C
69749800	MASTER LEDtube 600mm HO 8W840 T8	35 °C	-20 °C	50 °C	65 °C	-40 °C
69751100	MASTER LEDtube 600mm HO 8W865 T8	35 °C	-20 °C	50 °C	65 °C	-40 °C
72855000	MASTER LEDtube 1050mm 16W 830 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
81965400	MASTER LEDtube Starter EMP GenII OP	-	-	-	-	-
59235600	MASTER LEDtube 1200mm HO 12.5W 830 T8	45 °C	-20 °C	50 °C	65 °C	-40 °C
59237000	MASTER LEDtube 1200mm HO 12.5W 840 T8	45 °C	-20 °C	50 °C	65 °C	-40 °C
59239400	MASTER LEDtube 1200mm HO 12.5W 865 T8	45 °C	-20 °C	50 °C	65 °C	-40 °C
59241700	MASTER LEDtube 1500mm HO 18.2W 830 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
59243100	MASTER LEDtube 1500mm HO 18.2W 840 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
59245500	MASTER LEDtube 1500mm HO 18.2W 865 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
61602100	MASTER LEDtube 1050mm 16W 840 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
31656000	MASTER LEDtube 1200mm UO 14.7W 830 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
31658400	MASTER LEDtube 1200mm UO 14.7W 840 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
31660700	MASTER LEDtube 1200mm UO 14.7W 865 T8	45 °C	-20 °C	55 °C	65 °C	-40 °C
31662100	MASTER LEDtube 1500mm UO 21.7W 830 T8	45 °C	-20 °C	60 °C	65 °C	-40 °C
31664500	MASTER LEDtube 1500mm UO 21.7W 840 T8	45 °C	-20 °C	60 °C	65 °C	-40 °C
31666900	MASTER LEDtube 1500mm UO 21.7W 865 T8	45 °C	-20 °C	60 °C	65 °C	-40 °C



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