



Philips Master LEDtube T8



PHILIPS



Master LEDtube is a reliable value-for-money LED lamp out of Philips lighting portfolio, incorporates frontier LED chips and other advanced technologies. The product helps customers achieve more than 70% energy saving and significant maintenance cost reduction by comparing to fluorescent lamps. It also helps generate natural and comfortable lighting effect, and to build up green and environment friendly image for our customers.

Product Features

Highly Reliable

- Reliable operation between -20°C to 45°C ambient temperature
- Rated average life of 50,000 hours (tested to B50 L70 requirement)
- 200,000 switching cycles

Highly Comfortable

- CRI 83
- Advanced optical design ensures a uniform light output and superior optical efficiency

Highly Energy Efficient

- Energy savings of more than 70%*

* Based on comparison between 10.5W Master LEDtube standard and Philips TLD standard or super 80 36W(40-44W system power when working with Electro Magnetic Ballasts)

Highly Safe

- Protection circuit inside ensuring people's safety in case of mis-use, complying with IEC safety requirements
- Pass 4KV high-pot test, insulation & safety guaranteed
- Pass 1KV surge test (vs. IEC standard 500V), avoiding the damage caused by input voltage fluctuation and lightning strike

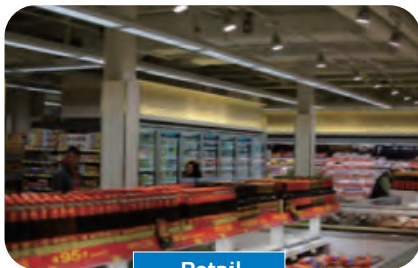
Highly Fit

- 100% comply with IEC requirement on T8 dimension, fitting into fluorescent luminaire perfectly

Highly Environmental Friendly

- No mercury
- No breakage and pollution risk

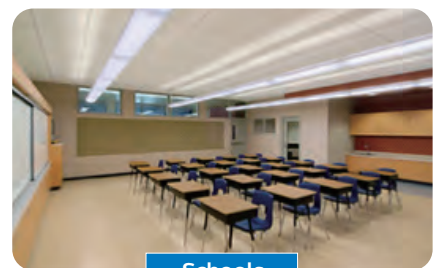
Application



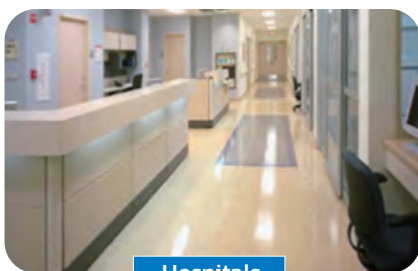
Retail



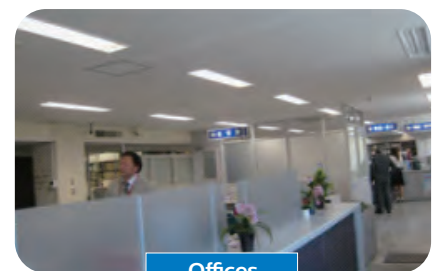
Industry



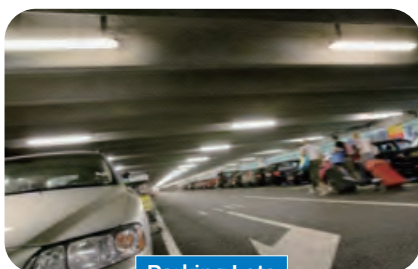
Schools



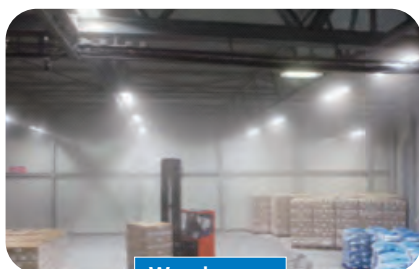
Hospitals



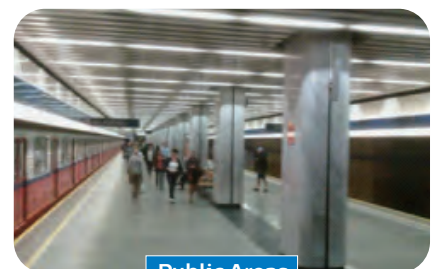
Offices



Parking Lots



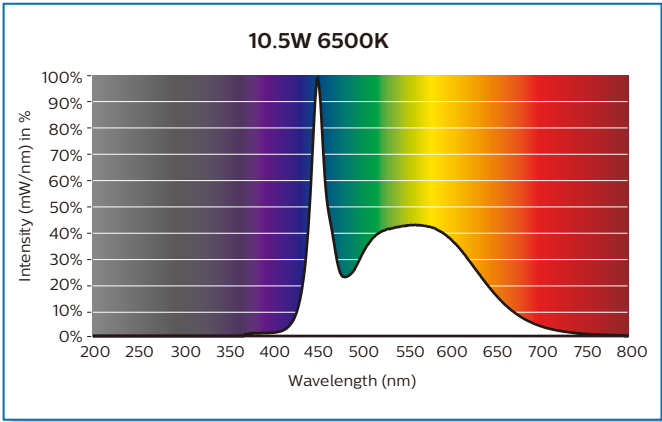
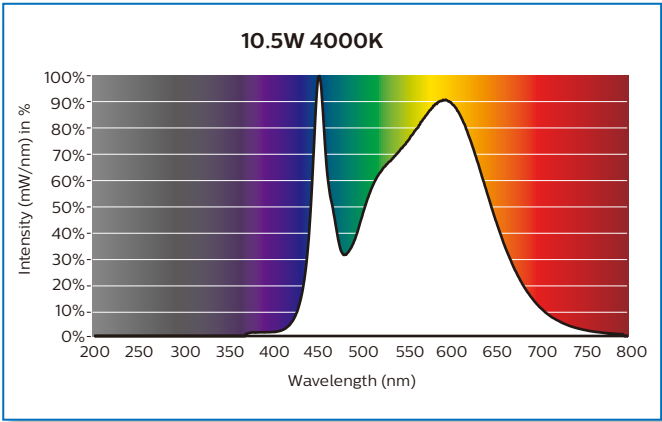
Warehouses



Public Areas

Spectral Power Distribution

Light may be precisely characterized by giving the power of the light at each wavelength in the visible spectrum. The resulting spectralpower distribution (SPD) shows that the Master LEDtube standard contains the visible light only. No harm from UV and IR.

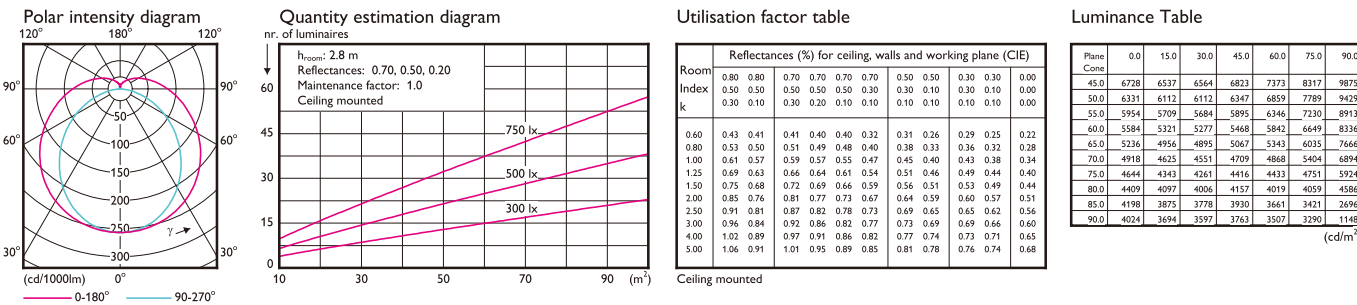


Photometric Diagrams

The Photometric diagram depicting the top down mounted lighting fixtures in a specific area and a numerical grid of the maintained lighting levels that the fixture will produce in that specific area. Pictures below show the photometric diagrams of a typical Philips Master LEDtube's application.

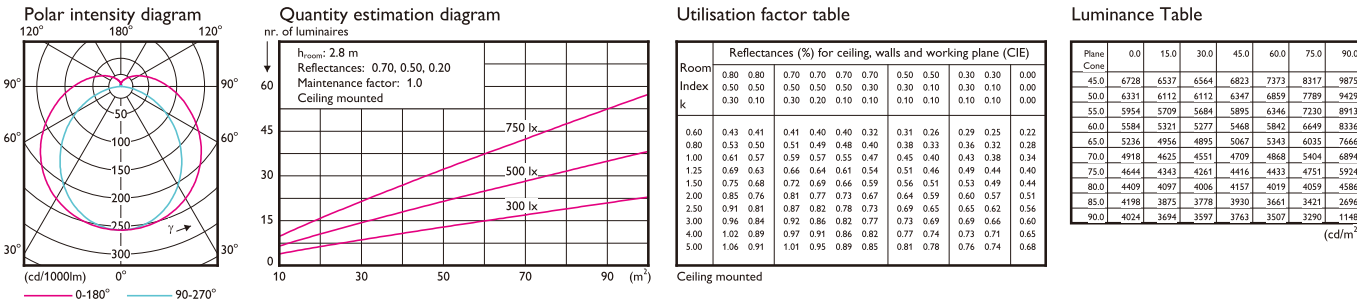
1 x TLED 10.5W 4000K 160D

1 x 1600 lm

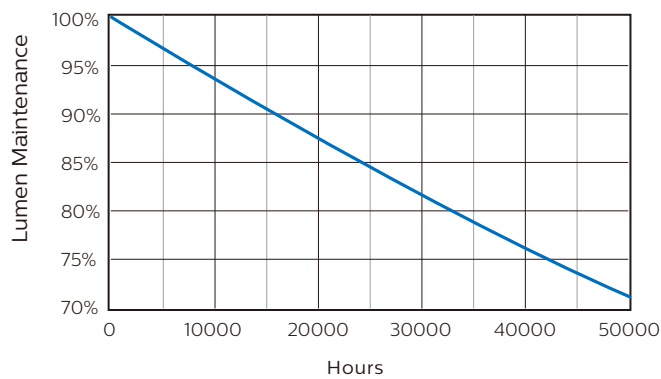


1 x TLED 10.5W 6500K 160D

1 x 1600 lm



Lifetime and Lumen Maintenance

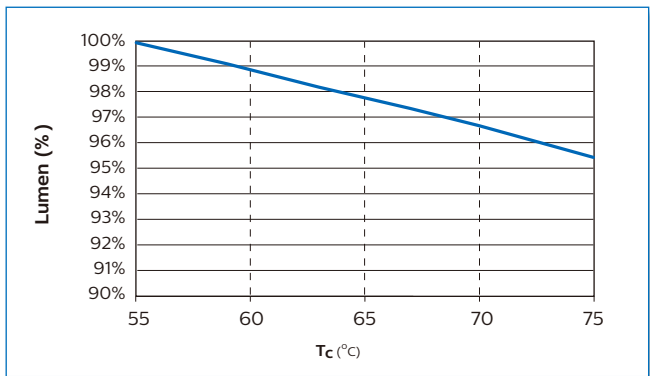


Philips Master LEDtube has a lifetime of 50,000 hours, defined as the number of hours when 50% of a large group of identical lamps below 70% of its initial lumens.

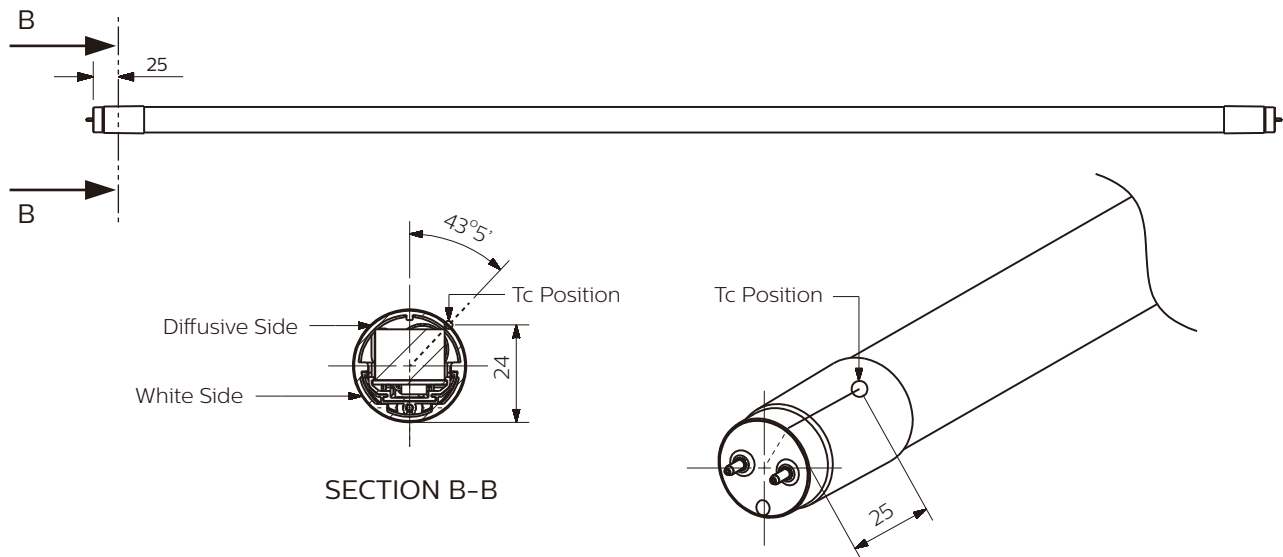
Temperature

Master LEDtube's excellent thermal design ensures low temperature during operating, which brings reliable and stable product performance throughout life time.

Operating temperature	T operating	min -20°C	max +45°C
Storage temperature	T storage	min -40°C	max +65°C
Maximum case temperature of tube at Tamb.=25°C	T case	+55°C	



1200mm_10.5W (Dimension: mm)



Approbation & Certificates

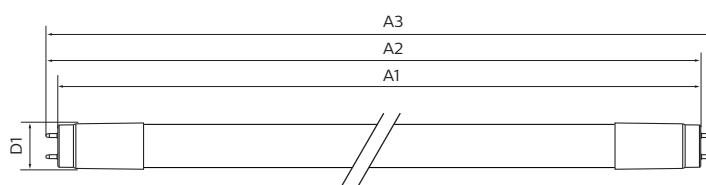
Philips Master LEDtube is designed by strictly following applicable legislation and international standard. The product complies with **CE**, **KEMA**, **TISI**, **RoHS** and **REACH**.



Technical specification

10NC	Product Description	Wattage	Equivalent Fluorescent Wattage	Voltage	Cap	Length	Beam angle	Lifetime	Lumen output (Typical)	Color Temp	CRI
		(W)	(W)	(V)		(mm)	(°)	(hrs)	(lm)	(K)	(Typical*)
9290012976	MAS LEDtube STD 1200mm 10.5W840 T8 I	10.5	36	220-240	G13	1200	160	50000	1600	4000	83
9290012977	MAS LEDtube STD 1200mm 10.5W865 T8 I	10.5	36	220-240	G13	1200	160	50000	1600	6500	83

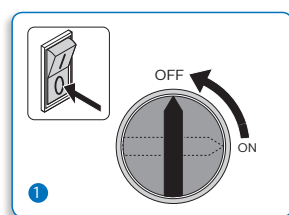
* Minimum CRI is 80



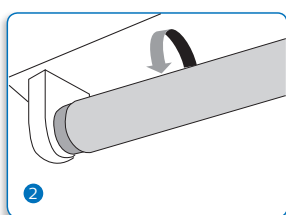
Dimensions (mm)

Product	A1	A2	A3	D1
1200mm	1198	1205	1212	27.9

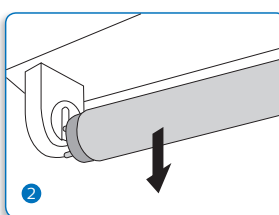
Installation Guide - for light fittings without starters



Mains Off



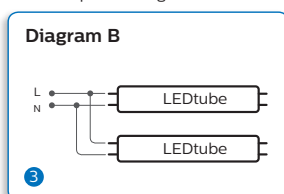
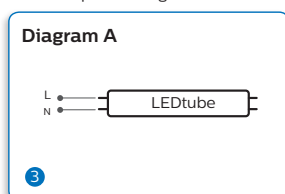
Remove all existing FLUORESCENT TUBES from luminaire



Please Note: If a starter is present, re-wiring is not required. Simply replace the tube and starter.

For 3 lamps use diagram A & B

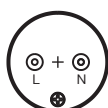
For 4 lamps use diagram B & B



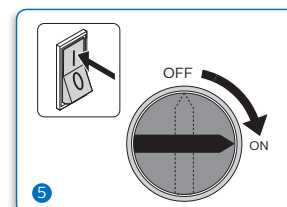
Bypass existing BALLAST and rewire according to the following diagrams.

Please check the L/N markings on the lamp end and insert the lamp with AC mains supplied to the corresponding end.

To install the lamp in the wrong direction will lead to malfunction.



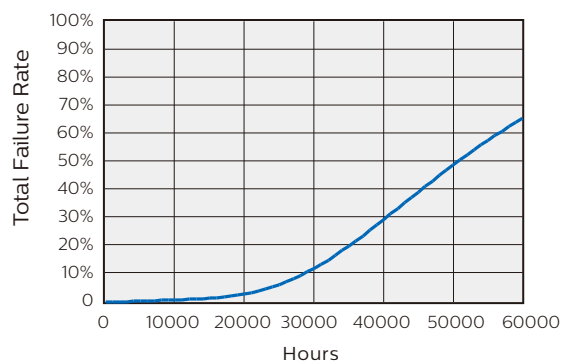
The supplied warning sticker must be placed on the luminaire and must be visible during lamp replacement



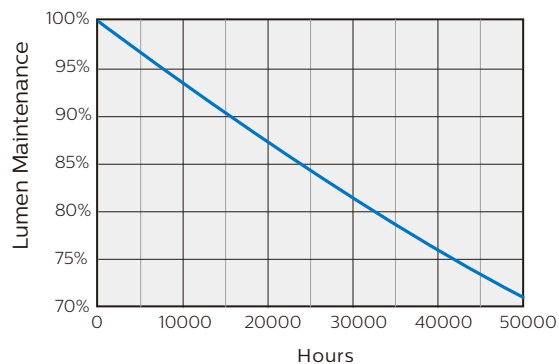
Turn on mains

OEM Guideline

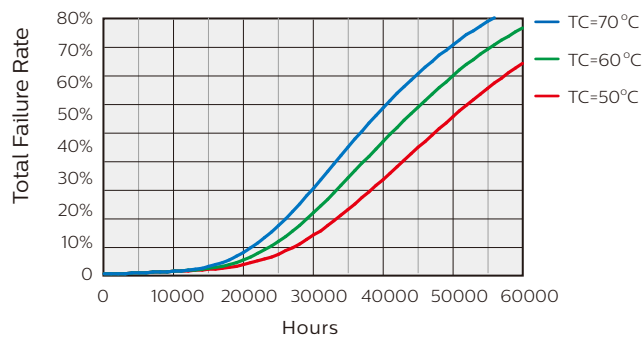
Lifetime vs. Failure Rate @ Ta 25 °C



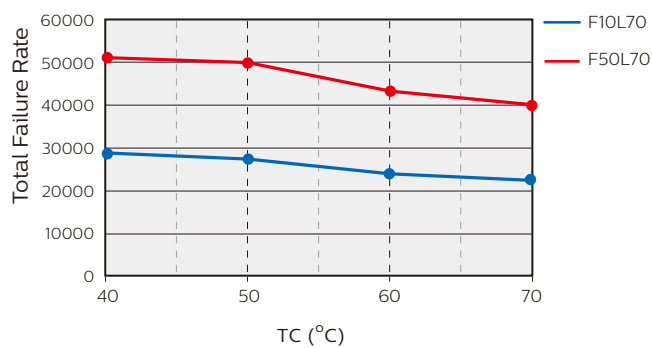
Lifetime and Lumen Maintenance



Failure Rate vs.
Lifetime vs. Tcase



Lifetime vs. Tcase



© 2017 Philips Lighting

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent or other industrial or intellectual property rights.

01/2017

www.philips.com