



Philips Master Spectrum Yellow 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 energy saving and significant maintenance cost reduction by comparing to fluorescent lamps. It also helps generate the required lighting effect, and to increase efficiency and build up green and environment friendly image for our customers.

Product Features

Highly Reliable

- Reliable operation between $-20\text{ }^{\circ}\text{C}$ to $45\text{ }^{\circ}\text{C}$ ambient temperature
- Rated average life of 50,000 hours (tested to B50 L70 requirement)
- 200,000 switching cycles

Highly Comfortable

- CRI 50
- Advanced optical design ensures a uniform light output and superior optical efficiency

Highly Energy Efficient

- Energy savings of more than 60%*

* Based on comparison between 14W Master LEDtube Yellow and Philips TLD Yellow 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

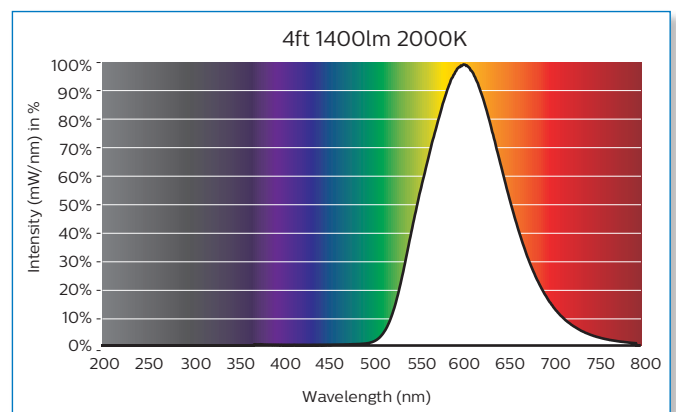
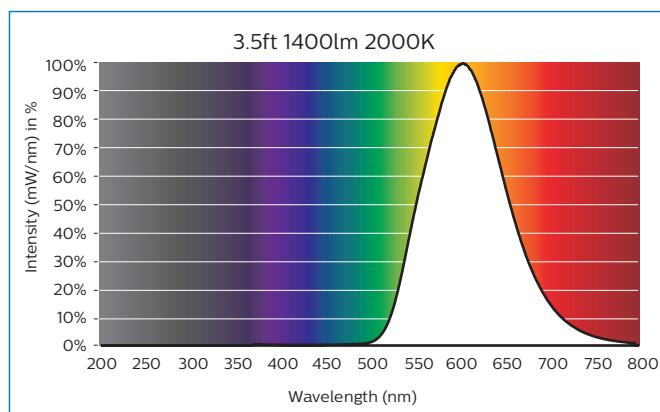
- No mercury
- No breakage and pollution risk

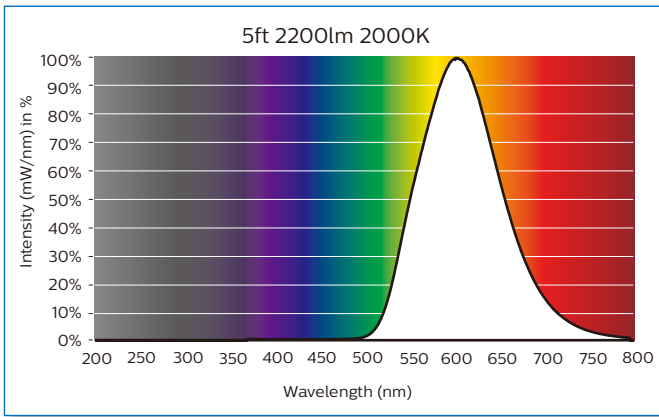
Application



Spectral Power Distribution

Light may be precisely characterized by giving the power of the light at the required wavelength. The resulting spectral power distribution (SPD) shows that the Master LEDtube standard contains the yellow light only.



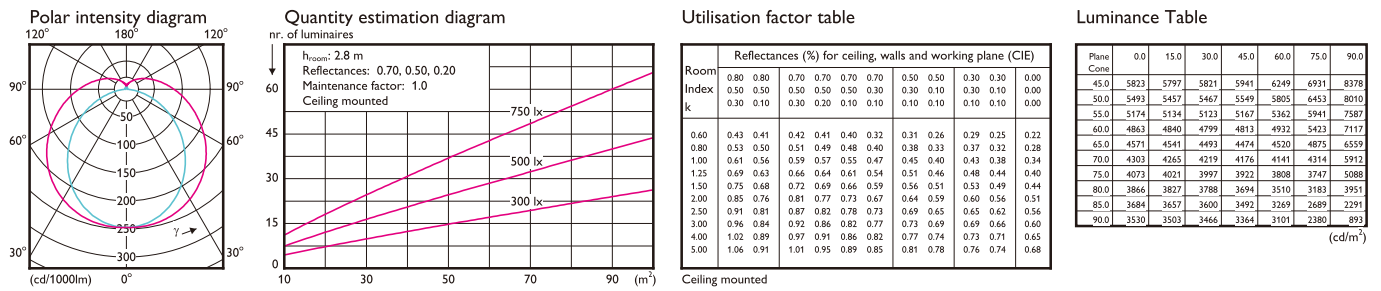


Photometric Diagrams

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.

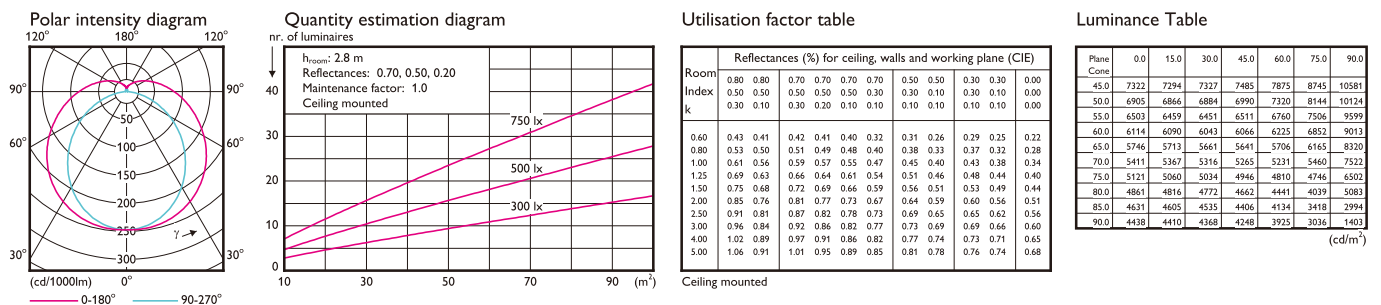
MAS LEDtube Spectrum 1200mm 1400lm 14W

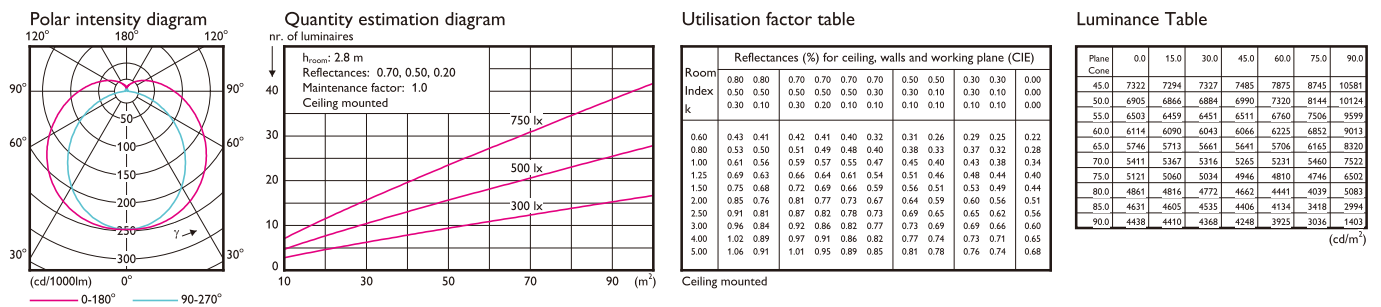
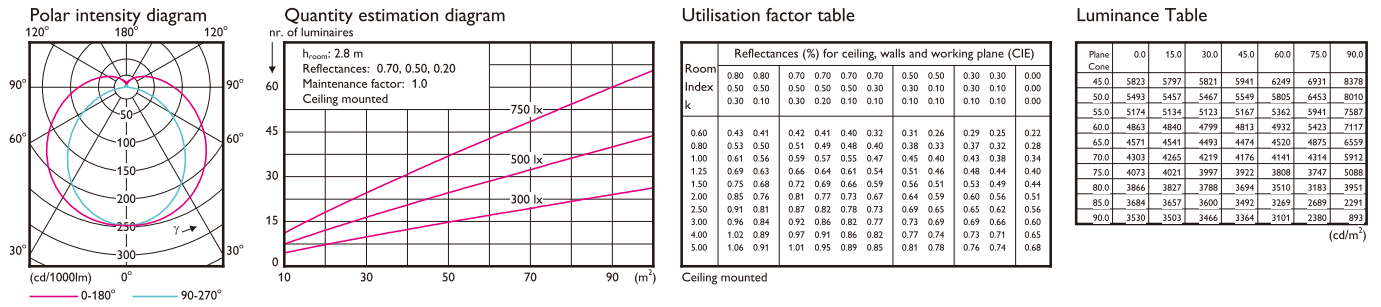
1 x 1400 lm



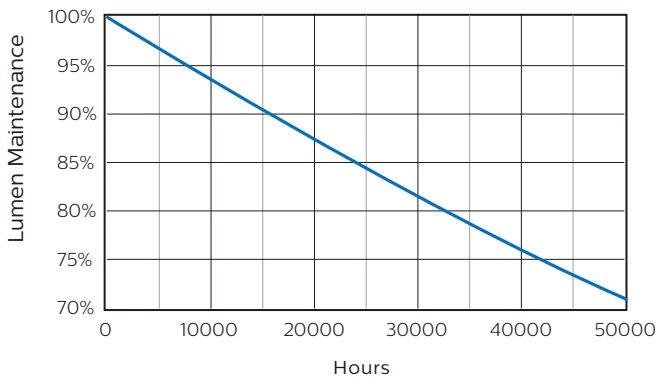
MAS LEDtube Spectrum 1500mm 2200lm 20W

1 x 2200 lm





Lifetime and Lumen Maintenance

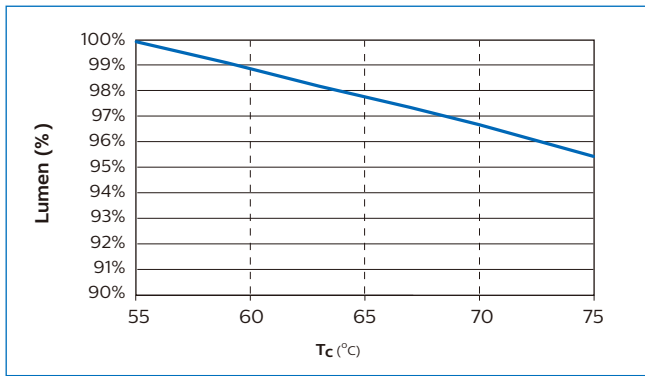


Philips Master LEDtube has a lifetime of 50,000 hours, defined as the number of hours when 50% of a large group of identical lamps below 70% of its initial lumens.

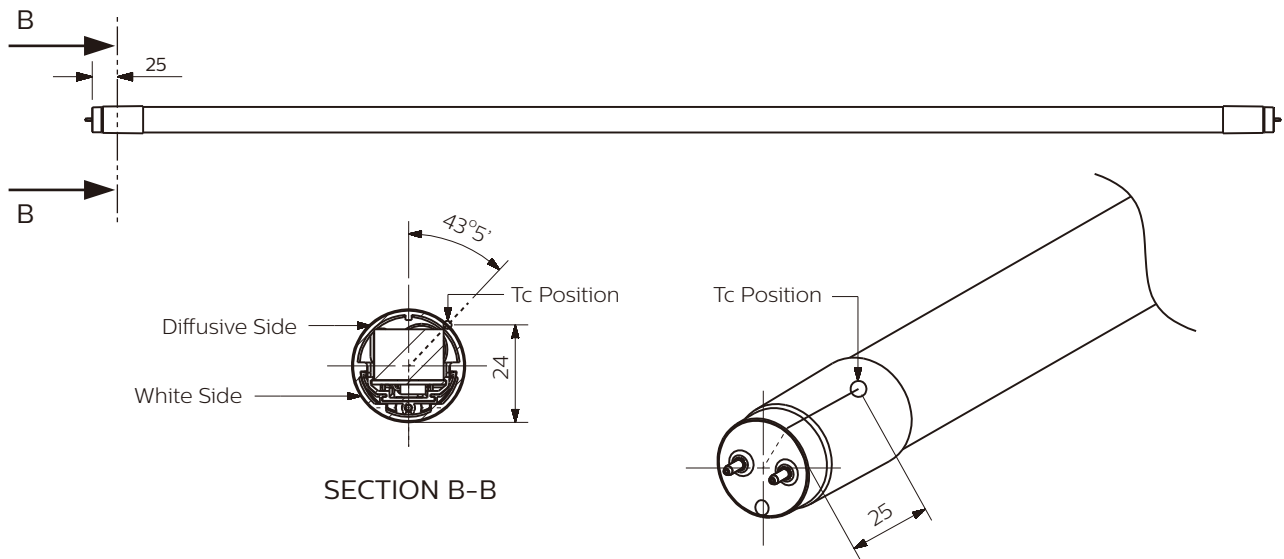
Temperature

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



Dimension: mm



Approbation & Certificates

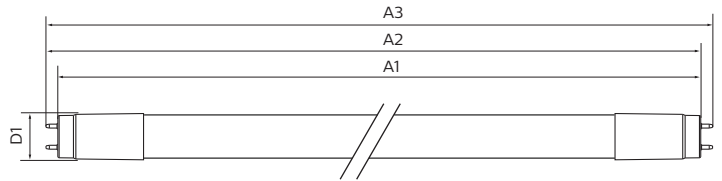
Philips Master LEDtube is designed by strictly following applicable legislation and international standard. The product complies with **CE, KEMA, TISI, RoHS** and **REACH**.



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*)
9290018265	MAS LEDtube Spectrum 1047mm 1400lm	14	32	220-240	G13	1050	160	50000	1400	2200	50
9290018264	MAS LEDtube Spectrum 1200mm 1400lm	14	36	220-240	G13	1200	160	50000	1400	2200	50
9290018263	MAS LEDtube Spectrum 1500mm 2200lm	20	58	220-240	G13	1500	160	50000	2200	2200	50

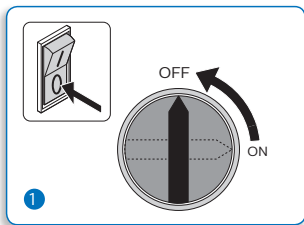
* Minimum CRI is 80



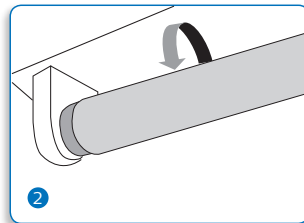
Dimensions (mm)

Product	A1	A2	A3	D1
1050mm	1047	1054	1061	27.9
1200mm	1199	1206.5	1213.6	27.9
1500mm	1500	1507.1	1514.2	27.8

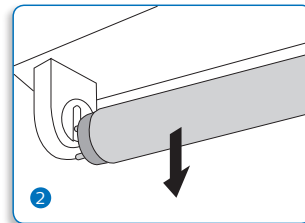
Installation Guide



Mains Off



Remove all existing FLUORESCENT TUBES from luminaire



For 3 lamps use diagram A & B

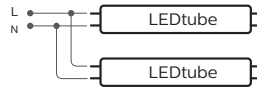
Diagram A



3

For 4 lamps use diagram B & B

Diagram B



3



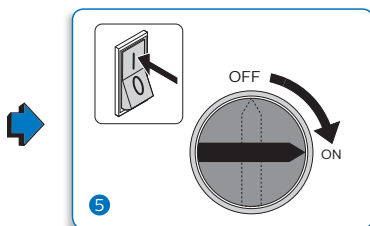
Warning sticker

4

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.



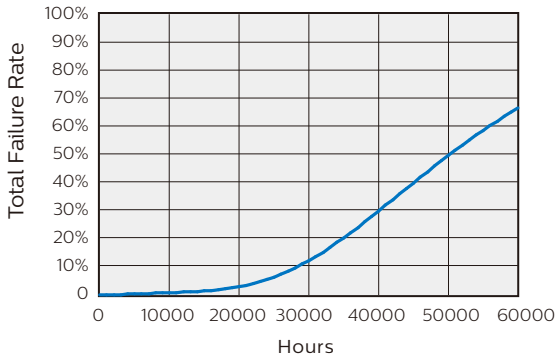
The supplied warning sticker must be placed on the luminaire and must be visible during lamp replacement



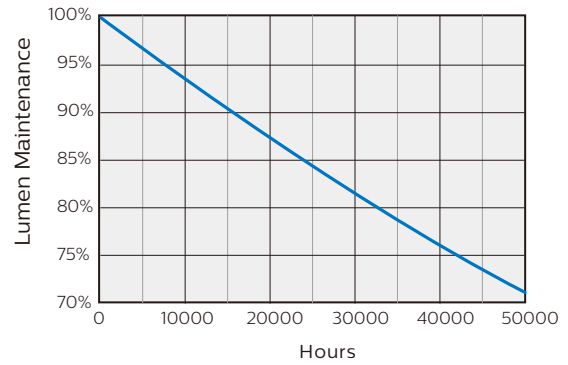
Turn on mains

OEM Guideline

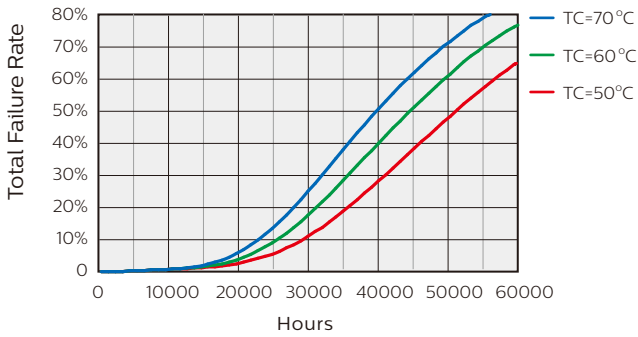
Lifetime vs. Failure Rate @ Ta 25 °C



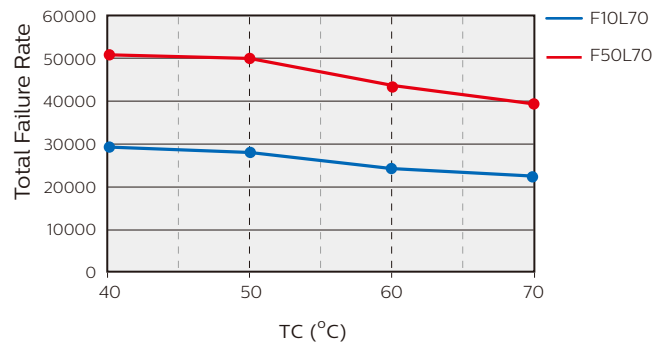
Lifetime and Lumen Maintenance



Failure Rate vs. Lifetime vs. Tcase



Lifetime vs. Tcase



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