



PHILIPS Lighting TL5 High Output User Guide

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The world's brightest fluorescent lighting

MASTER TL5 High Output

This TL5 lamp (tube diameter 16 mm) offers high light output. The TL5 HO lamp is optimized for installations requiring high light output and offers excellent lumen maintenance and color rendering. Application areas vary from offices and industry to schools and retail environments.

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Benefits

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

Features

- 40% thinner than TL-D lamps
- Designed for high light output and system miniaturization · Highly efficient 3-band fluorescent coating in combination with percolating
- Specifically designed for operation with electronic gear and well-suited for dimming
- Maximum light output reached at approximately 35 °C in free-burning position if an electronic driver with cut-off feature is used
- Can be ignited from -15 to +50 °C

Application

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

Warnings and Safety

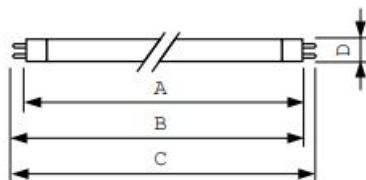
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

Versions

G5, T5



Dimensional drawing



Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL5 HO 49W/830 UNP/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 49W/830 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 49W/830 SLV/20	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 49W/840 UNP/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 49W/840 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 49W/840 SLV/20	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 49W/865 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER T1 5 HO 24W/830 UNP/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HO 24W/830 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HO 24W/840 UNP/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HO 24W/840 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HO 24W/840 1SL/20	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HO 24W/865 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HO 39W/830 SLV/40	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
MASTER TL5 HO 39W/840 UNP/40	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
MASTER TL5 HO 39W/840 SLV/40	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
MASTER TL5 HO 39W/840 SLV/20	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm

MASTER TL5 HO 54W/830 UNP/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HO 54W/830 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HO 54W/830 SLV/20	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HO 54W/840 UNP/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HO 54W/840 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HO 54W/840 SLV/20	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HO 54W/865 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL5 HO 80W/830 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 80W/840 UNP/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 80W/840 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 80W/840 SLV/20	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HO 80W/865 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm

Approval and application	
Mercury (Hg) Content (Nom)	1.2 mg
Controls and dimming	
Dimmable	Yes
General information	
Cap-Base	G5
Life To 50% Failures Preheat (Nom)	30000 h
LSF Preheat 16000 h Rated	97 %
LSF Preheat 20000 h Rated	84 %
LSF Preheat 2000 h Rated	99 %
LSF Preheat 4000 h Rated	99 %
LSF Preheat 6000 h Rated	99 %
LSF Preheat 8000 h Rated	99 %
System Description	High Output
Light technical	
Color Rendering Index (Max)	85
Color Rendering Index (Min)	80
LLMF 12000 h Rated	92 %
LLMF 2000 h Rated	96 %
LLMF 20000 h Rated	90 %
LLMF 4000 h Rated	95 %
LLMF 6000 h Rated	94 %
LLMF 8000 h Rated	93 %
Mechanical and housing	
Bulb Shape	T5
Temperature	
Design Temperature (Nom)	35 °C

Approval and application

Order Code	Full Product Name	Energy Consumption kWh/1000 h
927927583018	MASTER TL5 HO 49W/830 UNP/40	50 kWh
927927583055	MASTER TL5 HO 49W/830 SLV/40	50 kWh
927927583061	MASTER TL5 HO 49W/830 SLV/20	54 kWh
927927584018	MASTER TL5 HO 49W/840 UNP/40	50 kWh
927927584055	MASTER TL5 HO 49W/840 SLV/40	50 kWh
927927584061	MASTER TL5 HO 49W/840 SLV/20	54 kWh
927927586555	MASTER TL5 HO 49W/865 SLV/40	50 kWh
927928083018	MASTER TL5 HO 24W/830 UNP/40	25 kWh
927928083055	MASTER TL5 HO 24W/830 SLV/40	23 kWh
927928084018	MASTER TL5 HO 24W/840 UNP/40	23 kWh
927928084055	MASTER TL5 HO 24W/840 SLV/40	23 kWh
927928084061	MASTER TL5 HO 24W/840 1SL/20	25 kWh
927928086555	MASTER TL5 HO 24W/865 SLV/40	23 kWh
927928583055	MASTER TL5 HO 39W/830 SLV/40	38 kWh
927928584018	MASTER TL5 HO 39W/840 UNP/40	42 kWh
927928584055	MASTER TL5 HO 39W/840 SLV/40	38 kWh
927928584061	MASTER TL5 HO 39W/840 SLV/20	42 kWh
927928586555	MASTER TL5 HO 39W/865 SLV/40	38 kWh
927929083018	MASTER TL5 HO 54W/830 UNP/40	55 kWh
927929083055	MASTER TL5 HO 54W/830 SLV/40	55 kWh
927929083061	MASTER TL5 HO 54W/830 SLV/20	59 kWh
927929084018	MASTER TL5 HO 54W/840 UNP/40	55 kWh
927929084055	MASTER TL5 HO 54W/840 SLV/40	55 kWh
927929084061	MASTER TL5 HO 54W/840 SLV/20	59 kWh
927929086555	MASTER TL5 HO 54W/865 SLV/40	55 kWh
927929583057	MASTER TL5 HO 80W/830 SLV/40	80 kWh
927929584018	MASTER TL5 HO 80W/840 UNP/40	80 kWh
927929584057	MASTER TL5 HO 80W/840 SLV/40	80 kWh
927929584061	MASTER TL5 HO 80W/840 SLV/20	88 kWh
927929586557	MASTER TL5 HO 80W/865 SLV/40	80 kWh

Operating and electrical

Order Code	Full Product Name	Lamp Current	
		(Nom)	Power (Nom)
927927583018	MASTER TL5 HO 49W/830 UNP/40	0.255 A	49.3 W
927927583055	MASTER TL5 HO 49W/830 SLV/40	0.255 A	49.3 W
927927583061	MASTER TL5 HO 49W/830 SLV/20	0.255 A	49.2 W
927927584018	MASTER TL5 HO 49W/840 UNP/40	0.255 A	49.3 W
927927584055	MASTER TL5 HO 49W/840 SLV/40	0.255 A	49.3 W
927927584061	MASTER TL5 HO 49W/840 SLV/20	0.255 A	49.2 W
927927586555	MASTER TL5 HO 49W/865 SLV/40	0.255 A	49.3 W
927928083018	MASTER TL5 HO 24W/830 UNP/40	0.295 A	22.5 W
927928083055	MASTER TL5 HO 24W/830 SLV/40	0.295 A	22.7 W
927928084018	MASTER TL5 HO 24W/840 UNP/40	0.295 A	22.7 W
927928084055	MASTER TL5 HO 24W/840 SLV/40	0.295 A	22.7 W
927928084061	MASTER TL5 HO 24W/840 1SL/20	0.295 A	22.5 W
927928086555	MASTER TL5 HO 24W/865 SLV/40	0.295 A	22.7 W
927928583055	MASTER TL5 HO 39W/830 SLV/40	0.325 A	38.0 W
927928584018	MASTER TL5 HO 39W/840 UNP/40	0.325 A	38.0 W

Order Code	Full Product Name	Lamp Current	
		(Nom)	Power (Nom)
927928584055	MASTER TL5 HO 39W/840 SLV/40	0.325 A	38.0 W
927928584061	MASTER TL5 HO 39W/840 SLV/20	0.325 A	38.0 W
927928586555	MASTER TL5 HO 39W/865 SLV/40	0.325 A	38.0 W
927929083018	MASTER TL5 HO 54W/830 UNP/40	0.455 A	54.4 W
927929083055	MASTER TL5 HO 54W/830 SLV/40	0.455 A	54.4 W
927929083061	MASTER TL5 HO 54W/830 SLV/20	0.455 A	54.1 W
927929084018	MASTER TL5 HO 54W/840 UNP/40	0.455 A	54.4 W
927929084055	MASTER TL5 HO 54W/840 SLV/40	0.455 A	54.4 W
927929084061	MASTER TL5 HO 54W/840 SLV/20	0.455 A	54.1 W
927929086555	MASTER TL5 HO 54W/865 SLV/40	0.455 A	54.4 W
927929583057	MASTER TL5 HO 80W/830 SLV/40	0.530 A	79.8 W
927929584018	MASTER TL5 HO 80W/840 UNP/40	0.530 A	79.8 W
927929584057	MASTER TL5 HO 80W/840 SLV/40	0.530 A	79.8 W
927929584061	MASTER TL5 HO 80W/840 SLV/20	0.530 A	79.8 W
927929586557	MASTER TL5 HO 80W/865 SLV/40	0.530 A	79.8 W

Light technical

Order Code	Full Product Name	Chromaticity	Chromaticity	Color Code	Color Designation
		Coordinate X (Nom)	Coordinate Y (Nom)		
927927583018	MASTER TL5 HO 49W/830 UNP/40	0.44	0.403	830	Warm White (WW)
927927583055	MASTER TL5 HO 49W/830 SLV/40	0.44	0.403	830	Warm White (WW)
927927583061	MASTER TL5 HO 49W/830 SLV/20	-	-	830	Warm White (WW)
927927584018	MASTER TL5 HO 49W/840 UNP/40	0.38	0.38	840	Cool White (CW)
927927584055	MASTER TL5 HO 49W/840 SLV/40	0.38	0.38	840	Cool White (CW)
927927584061	MASTER TL5 HO 49W/840 SLV/20	-	-	840	Cool White (CW)
927927586555	MASTER TL5 HO 49W/865 SLV/40	0.313	0.337	865	Cool Daylight
927928083018	MASTER TL5 HO 24W/830 UNP/40	-	-	830	Warm White (WW)
927928083055	MASTER TL5 HO 24W/830 SLV/40	0.44	0.403	830	Warm White (WW)
927928084018	MASTER TL5 HO 24W/840 UNP/40	0.38	0.38	840	Cool White (CW)

Order Code	Full Product Name	Chromaticity	Chromaticity	Color Code	Color Designation
		Coordinate X (Nom)	Coordinate Y (Nom)		
927928084055	MASTER TL5 HO 24W/840 SLV/40	0.38	0.38	840	Cool White (CW)
927928084061	MASTER TL5 HO 24W/840 1SL/20	-	-	840	Cool White (CW)
927928086555	MASTER TL5 HO 24W/865 SLV/40	0.313	0.337	865	Cool Daylight
927928583055	MASTER TL5 HO 39W/830 SLV/40	0.44	0.403	830	Warm White (WW)
927928584018	MASTER TL5 HO 39W/840 UNP/40	-	-	840	Cool White (CW)
927928584055	MASTER TL5 HO 39W/840 SLV/40	0.38	0.38	840	Cool White (CW)
927928584061	MASTER TL5 HO 39W/840 SLV/20	-	-	840	Cool White (CW)
927928586555	MASTER TL5 HO 39W/865 SLV/40	0.313	0.337	865	Cool Daylight
927929083018	MASTER TL5 HO 54W/830 UNP/40	0.44	0.403	830	Warm White (WW)
927929083055	MASTER TL5 HO 54W/830 SLV/40	0.44	0.403	830	Warm White (WW)

927929083061	MASTER TL5 HO 54W/830 SLV/20	-	-	830	Warm White (WW)	927929583057	MASTER TL5 HO 80W/830 SLV/40	0.44	0.403	830	Warm White (WW)
927929084018	MASTER TL5 HO 54W/840 UNP/40	0.38	0.38	840	Cool White (CW)	927929584018	MASTER TL5 HO 80W/840 UNP/40	0.38	0.38	840	Cool White (CW)
927929084055	MASTER TL5 HO 54W/840 SLV/40	0.38	0.38	840	Cool White (CW)	927929584057	MASTER TL5 HO 80W/840 SLV/40	0.38	0.38	840	Cool White (CW)
927929084061	MASTER TL5 HO 54W/840 SLV/20	-	-	840	Cool White (CW)	927929584061	MASTER TL5 HO 80W/840 SLV/20	-	-	840	Cool White (CW)
927929086555	MASTER TL5 HO 54W/865 SLV/40	0.313	0.337	865	Cool Daylight	927929586557	MASTER TL5 HO 80W/865 SLV/40	0.313	0.337	865	Cool Daylight

Order Code	Full Product Name	Correlated Color Temperature (Nom)	Color		Luminous Efficacy			
			Rendering Index (Nom)	LLMF 16000 h Rated	(@ Max Lumen, Rated) (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
927927583018	MASTER TL5 HO 49W/830 UNP/40	3000 K	82	91 %	99 lm/W	89 lm/W	4375 lm	4375 lm
927927583055	MASTER TL5 HO 49W/830 SLV/40	3000 K	82	91 %	99 lm/W	89 lm/W	4375 lm	4375 lm
927927583061	MASTER TL5 HO 49W/830 SLV/20	3000 K	82	91 %	99 lm/W	89 lm/W	4900 lm	4375 lm
927927584018	MASTER TL5 HO 49W/840 UNP/40	4000 K	80	90 %	99 lm/W	89 lm/W	4375 lm	4375 lm
927927584055	MASTER TL5 HO 49W/840 SLV/40	4000 K	80	90 %	99 lm/W	89 lm/W	4375 lm	4375 lm
927927584061	MASTER TL5 HO 49W/840 SLV/20	4000 K	82	90 %	99 lm/W	89 lm/W	4900 lm	4375 lm
927927586555	MASTER TL5 HO 49W/865 SLV/40	6500 K	82	91 %	92 lm/W	83 lm/W	4100 lm	4075 lm
927928083018	MASTER TL5 HO 24W/830 UNP/40	3000 K	82	91 %	87 lm/W	76 lm/W	1950 lm	1700 lm
927928083055	MASTER TL5 HO 24W/830 SLV/40	3000 K	82	91 %	87 lm/W	76 lm/W	1700 lm	1700 lm
927928084018	MASTER TL5 HO 24W/840 UNP/40	4000 K	82	91 %	87 lm/W	76 lm/W	1700 lm	1700 lm
927928084055	MASTER TL5 HO 24W/840 SLV/40	4000 K	82	91 %	87 lm/W	76 lm/W	1700 lm	1700 lm
927928084061	MASTER TL5 HO 24W/840 1SL/20	4000 K	82	91 %	87 lm/W	76 lm/W	1950 lm	1700 lm
927928086555	MASTER TL5 HO 24W/865 SLV/40	6500 K	82	91 %	81 lm/W	72 lm/W	1575 lm	1575 lm
927928583055	MASTER TL5 HO 39W/830 SLV/40	3000 K	82	91 %	92 lm/W	82 lm/W	3100 lm	3100 lm

927928584018	MASTER TL5 HO 39W/840 UNP/40	4000 K	82	91 %	92 lm/W	82 lm/W	3500 lm	3100 lm
927928584055	MASTER TL5 HO 39W/840 SLV/40	4000 K	82	91 %	92 lm/W	82 lm/W	3100 lm	3100 lm
927928584061	MASTER TL5 HO 39W/840 SLV/20	4000 K	82	91 %	92 lm/W	82 lm/W	3500 lm	3100 lm
927928586555	MASTER TL5 HO 39W/865 SLV/40	6500 K	82	91 %	86 lm/W	76 lm/W	2875 lm	2875 lm
927929083018	MASTER TL5 HO 54W/830 UNP/40	3000 K	82	91 %	93 lm/W	83 lm/W	4500 lm	4500 lm
927929083055	MASTER TL5 HO 54W/830 SLV/40	3000 K	82	91 %	93 lm/W	83 lm/W	4500 lm	4500 lm
927929083061	MASTER TL5 HO 54W/830 SLV/20	3000 K	85	91 %	93 lm/W	83 lm/W	5000 lm	4500 lm
927929084018	MASTER TL5 HO 54W/840 UNP/40	4000 K	80	91 %	93 lm/W	83 lm/W	4500 lm	4500 lm
927929084055	MASTER TL5 HO 54W/840 SLV/40	4000 K	80	91 %	93 lm/W	83 lm/W	4500 lm	4500 lm
927929084061	MASTER TL5 HO 54W/840 SLV/20	4000 K	85	91 %	93 lm/W	83 lm/W	5000 lm	4500 lm
927929086555	MASTER TL5 HO 54W/865 SLV/40	6500 K	82	91 %	86 lm/W	78 lm/W	4200 lm	4200 lm
927929583057	MASTER TL5 HO 80W/830 SLV/40	3000 K	81	91 %	88 lm/W	82 lm/W	6550 lm	6550 lm
927929584018	MASTER TL5 HO 80W/840 UNP/40	4000 K	81	91 %	88 lm/W	82 lm/W	6550 lm	6550 lm
927929584057	MASTER TL5 HO 80W/840 SLV/40	4000 K	81	91 %	88 lm/W	82 lm/W	6550 lm	6550 lm
927929584061	MASTER TL5 HO 80W/840 SLV/20	4000 K	82	91 %	88 lm/W	82 lm/W	7000 lm	6550 lm
927929586557	MASTER TL5 HO 80W/865 SLV/40	6500 K	82	91 %	83 lm/W	79 lm/W	6300 lm	6300 lm





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2021, August 16 – data subject to change

Documents / Resources

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