

LED T8 BP

Tubular lamps

DATA SHEET



Product information

The GE LED T8 range offers safe, reliable and affordable energy saving alternatives to standard Fluorescent T8 lamps. Available in 60cm, 120cm and 150cm lengths, GE LED T8s can be quickly fitted as a replacement into luminaires operating on electro-magnetic control gear or on electronic gear with a simple re-wire (for further details see installation guide).

Applications



Offices



Industrial



Hospitality



Car Park

Specification Features

- 40,000 hours L70 rated lifetime, reduced maintenance cost
- High energy saving, efficiency 100-111 lm/W
- High uniformity of light, create elegant lighting atmosphere for retail & commercial applications
- Especially suitable for supermarket, high color rendering of fresh food to engage customers
- Environment friendly – no UV, no Hg
- Energy saving up to 60% (on mains connection versus T8 fluorescent lamps on electro-magnetic gear)
- High light output up to 3000 lm
- Instant-on light
- High Power Factor: 0.9
- Wide 140-150° light distribution
- Compatible with existing installations

IEC standards

EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting
EN 61000-3-2	Limits for harmonic current emissions (equipment rated current $\leq 16A$)
EN 61000-3-3	Limitation of voltage fluctuations and flicker in low voltage supply systems (equipment rated current $\leq 16A$)
EN 61547	Specification for equipment for general lighting purposes. EMC Immunity requirements
EN 62493:2010	Assessment of lighting equipment related to human exposure to electromagnetic field
IEC 62471	Photo biological safety of lamps and lamp systems
IEC 60061-1	Lamp Caps
IEC 61195	IEC Based Safety Standard Requirements for Double-capped Fluorescent Lamps
IEC 60598-1	Luminaires – Part 1: General requirements and tests
IEC 60598-2	Luminaires – Part 2: Particular requirements (all sections)
IEC 62031	LED modules for general lighting-Safety specifications
IEC 61347-2-13	Particular requirements for DC or AC supplied electronic control gear for LED modules



GE imagination at work

Specification summary

Rated Wattage	Length [mm]	CCT [K]	CCT Steps	Product Description	Rated Lumens [lm]	Life B50 [hrs]	CRI [Ra]	Energy Efficiency Class	Pack Qty [pcs]	Product Code
8	600	3000	<6	LED 8/T8 BP 2ft/830/100 - 240V BX1/15	700	40,000	80	A+	15	93011198
8	600	3000	<6	LED 8/T8 BP 2ft/840/100 - 240V BX1/15	800	40,000	80	A+	15	93011195
8	600	3000	<6	LED 8/T8 BP 2ft/865/100 - 240V BX1/15	800	40,000	80	A+	15	93011196
10	600	3000	<6	LED 10/T8 BP 2ft/830/100 - 240V BX1/15	950	40,000	80	A+	15	93011296
10	600	4000	<6	LED 10/T8 BP 2ft/840/100 - 240V BX1/15	1050	40,000	80	A+	15	93011197
10	600	6500	<6	LED 10/T8 BP 2ft/865/100 - 240V BX1/15	1050	40,000	80	A+	15	93011305
16	1200	3000	<6	LED 16/T8 BP 4ft/830/100 - 240V BX1/15	1450	40,000	80	A+	15	93011304
16	1200	4000	<6	LED 16/T8 BP 4ft/840/100 - 240V BX1/15	1600	40,000	80	A+	15	93011303
16	1200	6500	<6	LED 16/T8 BP 4ft/865/100 - 240V BX1/15	1600	40,000	80	A+	15	93011302
20	1200	3000	<6	LED 20/T8 BP 4ft/830/100 - 240V BX1/15	1850	40,000	80	A+	15	93011301
20	1200	4000	<6	LED 20/T8 BP 4ft/840/100 - 240V BX1/15	2050	40,000	80	A+	15	93011200
20	1200	6500	<6	LED 20/T8 BP 4ft/865/100 - 240V BX1/15	2050	40,000	80	A+	15	93011199
27	1500	3000	<6	LED 27/T8 BP 5ft/830/100 - 240V BX1/15	3000	40,000	80	A+	15	93011309
27	1500	4000	<6	LED 27/T8 BP 5ft/840/100 - 240V BX1/15	3000	40,000	80	A+	15	93011310
27	1500	6500	<6	LED 27/T8 BP 5ft/865/100 - 240V BX1/15	3000	40,000	80	A+	15	93011311
27	1500	3000	<6	LED 27/T8 VP 5ft/830/100 - 240V BX1/15	2500	40,000	80	A+	15	93011306
27	1500	4000	<6	LED 27/T8 VP 5ft/840/100 - 240V BX1/15	2700	40,000	80	A+	15	93011307
27	1500	6500	<6	LED 27/T8 VP 5ft/865/100 - 240V BX1/15	2700	40,000	80	A+	15	93011308

Specifications

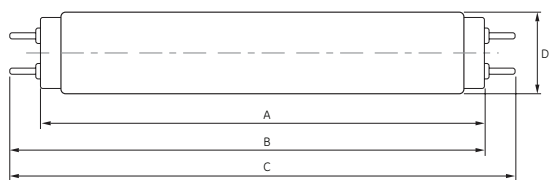
Nominal Voltage	100-240V
Operating frequency	50 – 60Hz
Power factor	≥ 0,90
Ambient temperature range	-20°C – +40°C
Starting time	< 0,5 s
Lumen maintenance at B50	70%
Beam angle	2ft/4ft/150°, 5ft/140°
Dimmable	No

Operation and maintenance

Store and use the lamps the same way as standard fluorescent lamps.

- Lamps should be kept free from contamination.
- Switch off mains supply before installing/removing lamp.
- Good condition of the lamp-holder contacts is important to ensure proper operation of lamp.
- For magnetic gear system ensure existing fluorescent starter is replaced with LED T8 starter (included in each pack)
- For direct wire please check the provided installation instructions
- Use in fully enclosed fixtures may affect life performance.
- Not for use in emergency lighting circuits

Dimensions [mm]



Maximum overall length [mm]	2 ft	4 ft	5 ft
A	600	1200	1500
B	597	1207	1507
C	604	1214	1514
D	28	28	28
Weight [g]	<200	<260	<380

- GB** The English version of the installation instruction and safety information can be found at the following location:
- DE** Die deutsche Version der Installationsanleitung und Sicherheitsinformationen finden Sie in folgendem Verzeichnis:
- FR** La version française des instructions d'installation et informations de sécurité est disponible à l'adresse suivante:
- IT** La versione italiana del manuale di installazione e sicurezza può essere reperita nella seguente sezione:
- ES** La versión española de las instrucciones de instalación y la información sobre seguridad puede encontrarse en la siguiente ubicación:
- PT** A versão em Português das instruções de instalação e das informações de segurança pode ser encontrada na seguinte localização:
- RO** Versiunea în limba română a instrucțiunilor de instalare și a informațiilor de siguranță pot fi găsite la:
- PL** Polską wersję instrukcji instalacji oraz informacje dotyczące bezpieczeństwa można znaleźć w następującej lokalizacji:
- CZ** Návod k montáži a bezpečnostní informace v češtině najdete zde:
- SK** Slovenskú verziu montážnej príručky a bezpečnostných inštrukcií nájdete na nasledujúcej lokalite:
- HR** Hrvatska verzija priručnika za ugradnju i sigurnosnih informacija nalazi se na sljedećoj lokaciji:
- RS** Verziju uputstva za instalaciju i informacija o bezbednosti na srpskom jeziku možete pronaći na sledećoj lokaciji:
- SI** Slovenska različica navodil za namestitev in varnostnih navodil se nahaja na naslednji strani:
- BA** Upute za instalaciju i sigurnosne informacije na engleskom jeziku možete naći na sljedećoj web lokaciji:
- MK** Англиската верзија на упатството за инсталирање и за безбедносните информации може да се најде на следната локација:
- HU** A telepítési útmutató és a biztonsági információk magyar nyelvű változata az alábbi címen található:
- NL** De Nederlandse versie van de installatie-instructies en veiligheidsinformatie kan op de volgende locatie worden gevonden:
- DK** Den danske version af installationsvejledningen og sikkerhedsoplysninger kan findes på følgende placering:
- FI** Asennusohjeiden ja turvallisuuksietojen suomenkielinen versio löytyy seuraavasta paikasta:
- NO** Den norske versjonen av installasjonsinstruksjonene og sikkerhetsinformasjonen finnes under:
- SE** Ni hittar den svenska versionen av installationsanvisningarna och säkerhetsinformationen på följande plats:
- EE** Eestikeelse paigaldusjuhendi ja ohutusnõuded leiute aadressilt:
- LV** Uztādīšanas instrukciju un drošības informāciju latviešu valodā var atrast šeit:
- LT** Lietuvišką diegimo instrukcijos ir saugos informacijos versiją galima rasti šioje vietoje:
- GR** Μπορείτε να βρείτε την ελληνική έκδοχή των οδηγιών εγκατάστασης και των πληροφοριών ασφάλειας στην εξής τοποθεσία:
- RU** Русскую версию инструкции по установке и технике безопасности можно найти здесь:
- UA** Українська версія інструкції зі встановлення та інформація щодо безпеки знаходяться за такою адресою:
- BG** Българската версия на инструкциите за инсталация и информация за безопасност могат да бъдат намерени на следния адрес:
- ARAB** يمكن إيجاد النسخة العربية من إرشادات التثبيت ومعلومات الأمان على الموقع التالي:
- TR** Montaj talimatı ve güvenlik bilgilerinin Türkçe sürümü, aşağıdaki konumda bulunabilir:
- IL** ניתן למצוא הגרסה העברית של פרטי ההתקנה ופרטי הבטיחות בכתובת דלהלן:

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LED T8 Universal tubes

LED T8 PPU 2-5Ft 100-277V

LED T8 Universal tube is suitable to replace T8 fluorescent lamps in luminaires with standard G13 (medium bi-pin) lamp holders. This product is intended to be compatible with most types of magnetic ballasts (CCGs) and Electronic ballasts (ECGs), as direct retrofits for traditional fluorescent lamps without rewiring. If a ballast does not work properly (eg. causes flickering, noise or fails to operate), please refer to direct wiring/new luminaire section of the instructions.

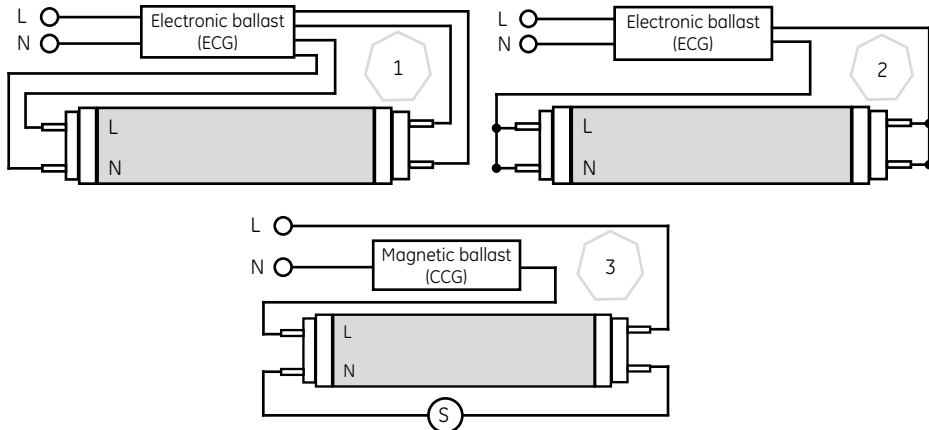


BEFORE YOU BEGIN

to install the LED T8 Universal tube, please read the entire installation guide carefully!

* Ensure that package includes: installation guide, warning label to be attached to luminaire, LED T8 tube and LED dummy starter.

* Identify which ballast type is installed in the fixture (see figures below) and follow the relevant section of the Installation instructions to replace the fluorescent tube with the LED T8 Universal tube. When direct wiring of the Luminaire is needed: The technical and safety requirements of the converted luminaire are the sole responsibility of the party doing the conversion and must comply with the local applicable safety and regulatory laws (i.e. LVD) and standards (i.e. IEC 60598). The provided Warning label should be placed onto the converted luminaire to indicate that the luminaire has been modified and can no longer be used with fluorescent lamps.



Warning: Risk of fire or electric shock. LED retrofit installation must be done by a qualified electrician and all safety instructions must be followed to avoid a risk of injury and property damage. Do not disassemble this product and replace any LED or other internal components. When the light source reaches its end of life the whole luminaire shall be replaced.

Warning: Risk of electric shock. Disconnect power before installation.

Don't switch on power until installation of lamps are completed.

Warning: The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 0.65 m can be prevented.

Installation instruction

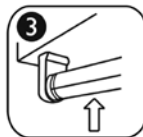
*Retrofit / Electronic ballast system



1. Turn off power



2. Remove the existing fluorescent lamp



3. Insert GE LED T8 Universal tube



4. Turn power back on and check for proper operation.

Note: In case of fixture supplied with electronic ballast, the green cap of the GE LED T8 Universal tube can face any of the two directions. If tube does not start up properly, then you can try to exchange direction or go to the direct wiring/new luminaire section of the instructions.

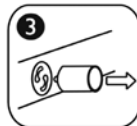
*Retrofit / Magnetic ballast system



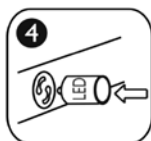
1. Turn off power



2. Remove the existing fluorescent lamp



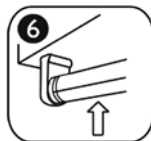
3. Remove the existing fluorescent starter



4. Insert LED T8 starter (provided extra by GE) into existing fluorescent starter location



5. Apply caution label provided in the package to warn users that the system has been modified and operates only LED lamps



6. Insert GE LED T8 Universal tube



7. Turn power on and check for proper operation

Note: Caution label with the following warning shall be placed onto the fixture in a location where readily visible by the user during re-lamping and after installation: "Caution: Risk of injury or damage: This luminaire has been modified and can no longer operate a fluorescent lamp. Only use the replacement GE LED T8 lamp type or contact manufacturer for more information."

*Direct wire / new luminaire

For applications where retrofit is not possible please follow the procedure below

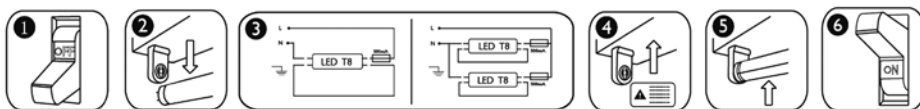
- 1) Ensure power is off by disconnecting the supply voltage from luminaire
- 2) Remove all fluorescent lamps and starters
- 3) Wire luminaire according to one of the below diagrams depending whether it is single or twin tube fixture (figure 3).

Note: LED T8 tube will not work with shunted lamp holders.

Note: Final compliance/inspection to local standards/regulations of the luminaire is the sole responsibility of the luminaire manufacturer or installer.

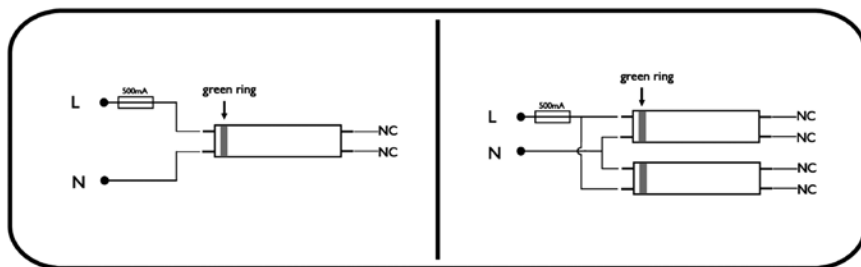
Note: The fuse should be rated for 250 V 500 mA. See electrical distributor for proper fuse.

- 4) Place warning label found in LED retrofit lamp package to ensure that the user understands that the system now uses LED tubes and replacement with fluorescent can cause damage.
- 5) Insert T8 LED lamp
- 6) Turn power back on and check for proper operation.



*Additional information

It is also possible to connect both line (L) and neutral (N) power to one lampholder (as per below diagram). In this case tube with the power side (marked with "AC Input and green ring around the cap) should be facing the lampholder with mains connection otherwise the internal fuse of the tube could be destroyed.



GE imagination at work

Please retain this Installation Guide for further reference
GE/CM Lighting disclaims liability for any damage caused
by not following the instructions in this Installation Guide.
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