



LED T8 Neo 18 - 865				
Operating current	Voltage	Power	Luminous efficacy	Luminous flux
550 mA	20.0 V	11.0 W	164 lm/W	1 800 lm
500 mA	19.9 V	10.0 W	165 lm/W	1 643 lm
450 mA	19.9 V	8.9 W	166 lm/W	1 485 lm
400 mA	19.8 V	7.9 W	168 lm/W	1 328 lm
<b>350 mA</b>	<b>19.7 V</b>	<b>6.9 W</b>	<b>170 lm/W</b>	<b>1 170 lm</b>
300 mA	19.5 V	5.9 W	172 lm/W	1 010 lm
250 mA	19.4 V	4.8 W	176 lm/W	850 lm
200 mA	19.2 V	3.8 W	180 lm/W	690 lm



D



6.9



6500K



70 000h




Dimmable



5 YEARS  
GUARANTEE

## General Data

Article No.	43719849
Code	LED T8 NEO 18 865/G13
Product EAN	4008597198496
Customs tariff no.	85395200
Box quantity (pcs.)	25
EAN Box	4008597498497
Gross weight of box in kg	3.2
Length of box in m	0.67
Width of box in m	0.21
Height of box in m	0.2
ETIM class	EC001959
ETIM class name	LED-lamp/Multi-LED
Weight	90 g
Product status	 Active

## Electric Parameters

Nominal power	6.9 W
Rated wattage	6.9 W

## Electric Parameters

Weighted energy consumption in 1,000 hours	7 kWh
Nominal voltage	18.5-20.5 V
Voltage type	DC
Nominal current	200-550 mA
Nominal current (mA)	350 mA

## Light Application Parameters

Rated luminous flux acc. IEC 62722-2-1	1170 lm
Luminous flux	690-1800 lm
max. luminous flux	1800 lm
max. luminous flux at	550 mA
Beam angle	160 °
Luminous efficiency	170 lm/W
Radium light colour	daylight
Color temperature	6500 K
Color coordinate X	0.313
Color coordinate Y	0.337
Color rendering index Ra	> 80
Color Stability	≤ 5 sdcn

## Service Life

Average nominal lifespan	70000 h
Tc Temperature max.	70 °C
Life L70B10	100000 h
Life L80B10	70000 h
Guarantee up to	5 years

## Specification

Energy Label A to G	D
Diameter	28.5 mm
Tube diameter	25.4 mm
Length max.	603 mm
Length	600 mm
Length	600 mm
Burning position	beliebig
Mercury content	0.0 mg

## Specification

Material	Glass
Shatterproof in accordance with US-food-standard	Yes
Lamp shape	Tube, double-ended
Base	G13
Colour	White
Weight	90 g

## Notes on Operation

Degree of protection (IP)	IP20
Mode of operation for LED-Tubes	DC
Burning position	beliebig
Range of storage temperature	-20 ... +60°C
Ambient temperatures	-20 ... +50°C
Tc Temperature max.	70 °C
Suitable control gear	OTDA4030, OTNA4033

## Information especially for EPREL

Mains/Non mains connectable	NMLS
Directional or non-directional light	NDLS
Color tunable light source	No
Type of color temperature	SINGLE_VALUE
Color stability MacAdams EPREL	5

## Notes

T8 tubular DC LED lamp for external drivers, dimmable with suitable driver, daylight, glass bulb, base G13. Exchange for fluorescent lamps.

Please, refer to [www.radium.de/recycling](http://www.radium.de/recycling) for notes on disposal of burned-out lamps as well as lamp breakage.

The "lifespan L70" described for LED lamps indicates the number of hours when the luminous flux has decreased to 70% of its initial value.

The optimal field 'info about service life' contains the frame conditions according to standards based on which the specific service life has been determined. So, for example, "12B50, 50Hz" means that the mean service life (B50) has been determined with a 12h switching cycle at mains (frequency 50Hz), "3B50, HF" is based on a 3h switching cycle at electronic control gear (high frequency).

### Base



G13  
IEC/EN 60061-1  
sheet 7004-51-8

### Spectrum

As daylight is a mixture of direct sunlight and light from the sky, the spectral distribution changes all the time due to the time of the day and the weather. The standard illuminant D65 corresponds to daylight with colour temperature of about 6500K.

The colour of coloured LEDs depends on the chemical elements within the light generating chip. The coloured light is generated directly and does not need filtering.

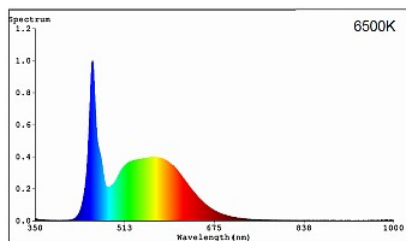
White LEDs are either RGB (red + green + blue chip in one LED = light colour white) or blue LED-chips with yellow/orange phosphor in the resin.

# DC Tube

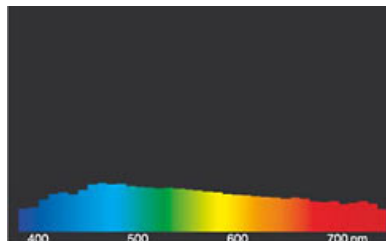
LED T8 NEO 18 865/G13

# Radium

Visible region from 380 to 780 nm; height of graph corresponding with relative spectral emission (400mW/klm)per 10nm.



LED-NEO-Tubes 6500K, Replacements for fluorescent lamps



daylight(D 65)

## Special features



## General notes

Please note the installation instructions when replacing fluorescent lamps with LED tubes. Some LED lamp types are only suitable for 1: 1 replacement at the respective burning position: with CCG by using the enclosed starter, with ECG with compatible control gear. Others can be operated directly on 230V (conversion of the luminaire), others again can 'do' CCG as well as 230V or all 3 variations. Neo tubes need an external LED driver (replacement of the control gear). LED Neo tubes are dimmable, all other LED tubes are not dimmable.

The technical design data in accordance with DIN and IEC. The producer does not take any responsibility for damage to persons or property in case of unsuitable operation or handling of the product. Operating data and dimensions are valid within the usual tolerances. Related lamp types (different bases, mains voltages) may be available on request. Sale and delivery are effected in accordance with the Radium Terms of Delivery and Payment valid on the day of conclusion of contract. Packing units offer economical advantages to the purchase and logistic department. Please match your quantity volume accordingly. For orders of a minimum quantity (clefs) with a lamp model the amount lower than the volume of each packaging unit, we will invoice 10 % additional charge per lamp type. Technical changes and terms of delivery are reserved. Manipulation of any kind to packaging or product is not permissible as this will violate Radium brand rights. Furthermore, technical properties of the product can change to its disadvantage or even destruction. Therefore, Radium cannot be responsible for consequential damages.

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Subject to change without notice. Errors and omissions excepted.

## Safety instructions

To ensure full light efficiency and product life, the permissible temperature ranges must be observed and dry environment ensured. When operated with existing control gear, their compatibility with the lamp must be checked.

All technical data without guarantee.

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## Technical information

### LED T8 NEO 18

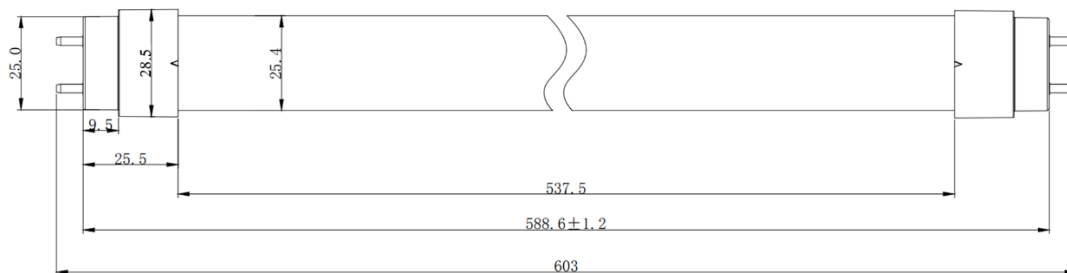
LED T8 Neo Tube for the replacement of 18W T8 fluorescent lamps and operation on constant current LED drivers. Not suitable for operation on ECGs, CCGs or mains voltage. The tube is made of frosted glass and has shatter protection. Variable luminous flux (up to 1.875lm) which depends on the current. The LED T8 Neo is polarity neutral and has a lifetime of 70,000h L80B10. Dimmable when using a dimmable LED driver.

Compatible Radium LED Drivers:

- OTDA4030 DRIVER DALI 15W/100-350mA IP20
- OTNA4033 DRIVER 15W/350mA IP20



### Drawing



### Technical Data

#### General data

Code	LED T8 NEO 18 840/G13	LED T8 NEO 18 865/G13
Article No.	43719848	43719849
EAN10	4008597198489	4008597198496
EAN40	4008597498480	4008597498497
Weight [g]	90 g	90 g
Length [mm]	603 mm	603 mm
Diameter Base [mm]	28.5 mm	28.5 mm
Diameter Tube [mm]	25.4 mm	25.4 mm
Service life L80/B10 @Ta(max.)	70,000 h	70,000 h
Service life L70/B10 @Ta(max.)	100,000 h	100,000 h
Energylabel A to G	C	D
Guarantee	5 years	5 years
LED	SMD 2835 60mA	SMD 2835 60mA

#### Operating conditions

Permissible ambient temperature Ta [°C]	-20°C...+50°C	-20°C...+50°C
Permissible storage temperature [°C]	-20°C...+60°C	-20°C...+60°C
Permissible Tc temperature [°C]	-20°C...+65°C	-20°C...+65°C
Max. permissible Tc temperature [°C]	+70°C	+70°C
Degree of protection (IP)	IP20	IP20
Operating mode	LED-Driver, constant current, DC	LED-Driver, constant current, DC

#### Electrical Parameter

Rated power* [W]	6,9 W	6,9 W
Voltage [V DC]	18,5 – 20,5 V	18,5 – 20,5 V

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Information no. 9901-01-2112

Validity: The technical information sheets (TI sheets) are updated at irregular intervals! The user is responsible for the validity and up-to-dateness of this TI sheet. With the publication of this TI sheet, all previous editions for this lamp type lose their validity.

# Radium

## Technical information

Operating current [mA]	350 mA	350 mA
Permissible output current [mA]	200 - 550 mA	200 - 550 mA
Dimmable	yes	yes
Energy consumption in 10.000h* [kWh]	7 kWh	7 kWh
Operable number with one OTDA4030	1 – 2 pcs	1 – 2 pcs
Operable number with one OTNA4033	2 pcs	2 pcs
Operable number with one OTDA4031	4 pcs	4 pcs
Operable number with one OTNA4034	4 pcs	4 pcs

\* @350mA

### Photometric Parameter

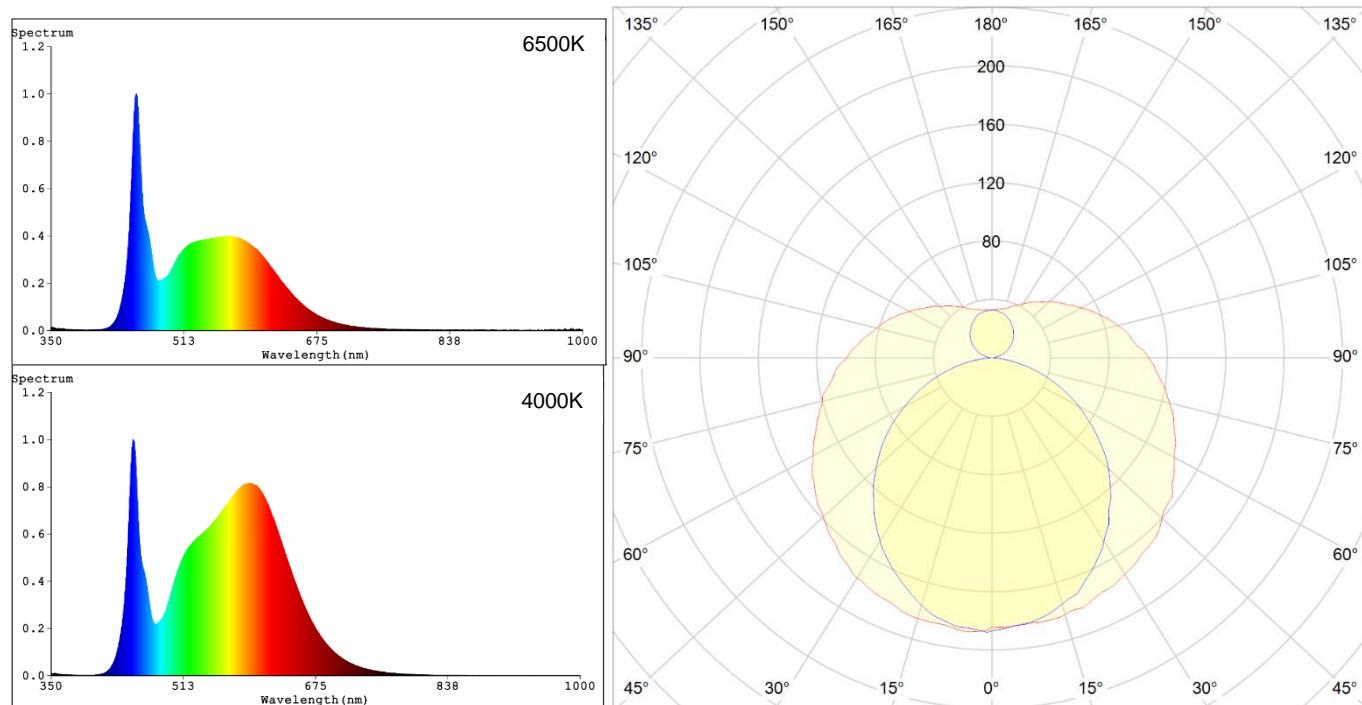
Rated luminous flux* [lm]	1215 lm	1170 lm
Beam angle [°]	160 °	160 °
Luminous efficiency * [lm/W]	176 lm/W	170 lm/W
Color temperature [K]	4000 K	6500K
Color rendering index [CRI]	≥ 80	≥ 80
Color stability	≤ 5 SDCM	≤ 5 SDCM
Color stability typical	3 SDCM	3 SDCM

\* @350mA

### Operating current table

Operating current	Voltage	Power	Luminous efficacy 4000K	Luminous flux 4000K	Luminous efficacy 6500K	Luminous flux 6500K
550 mA	20,0 V	11,0 W	170 lm/W	1.875 lm	164 lm/W	1.800 lm
500 mA	19,9 V	10,0 W	172 lm/W	1.710 lm	165 lm/W	1.643 lm
450 mA	19,9 V	8,9 W	173 lm/W	1.545 lm	166 lm/W	1.485 lm
400 mA	19,8 V	7,9 W	174 lm/W	1.380 lm	168 lm/W	1.328 lm
<b>350 mA</b>	<b>19,7 V</b>	<b>6,9 W</b>	<b>176 lm/W</b>	<b>1.215 lm</b>	<b>170 lm/W</b>	<b>1.170 lm</b>
300 mA	19,5 V	5,9 W	179 lm/W	1.049 lm	172 lm/W	1.010 lm
250 mA	19,4 V	4,8 W	182 lm/W	882 lm	176 lm/W	850 lm
200 mA	19,2 V	3,8 W	186 lm/W	716 lm	180 lm/W	690 lm

## Spectrum / Light distribution



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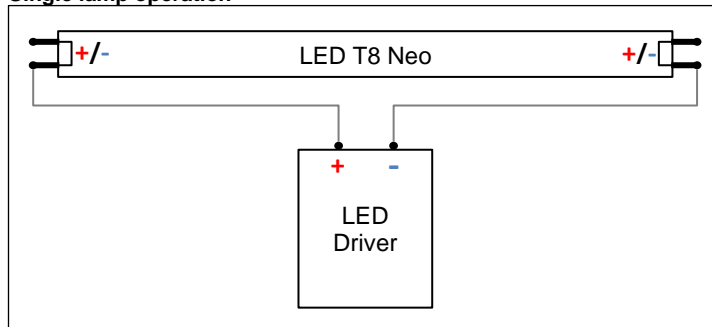
Information no. 9901-01-2112

# Radium

## Technical information

### Wiring diagram

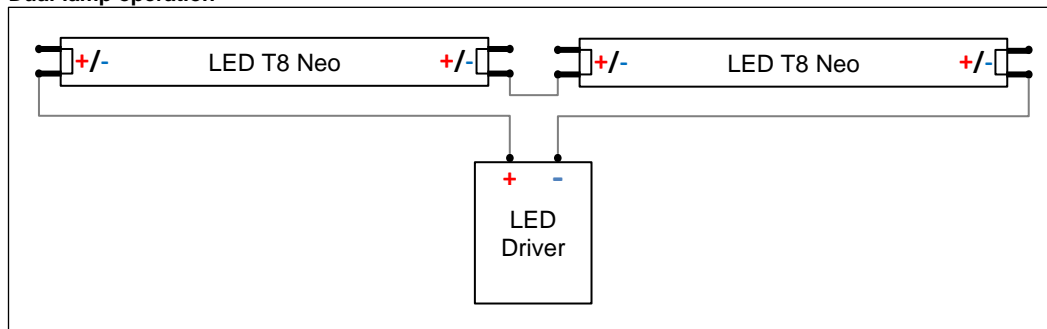
#### Single lamp operation



Recommended Radium LED-Driver:

- OTDA4030 DRIVER DALI 15W/100-350mA IP20

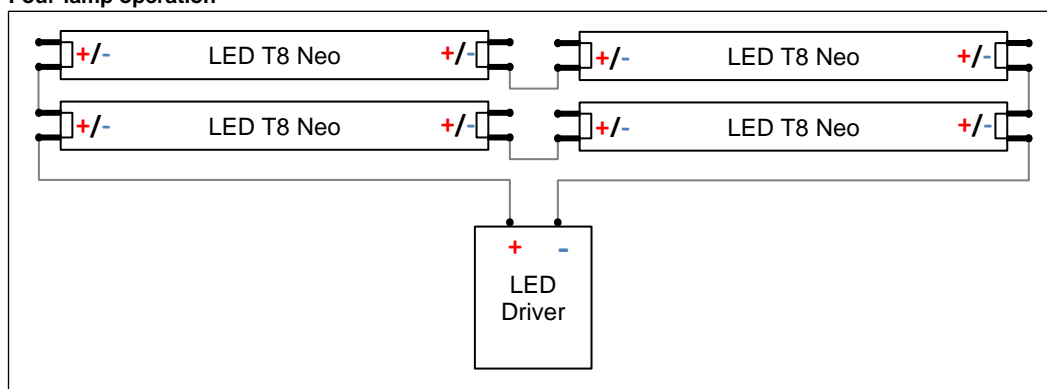
#### Dual-lamp operation



Recommended Radium LED-Driver:

- OTDA4030 DRIVER DALI 15W/100-350mA IP20
- OTNA4033 DRIVER 15W/350mA IP20

#### Four-lamp operation



Recommended Radium LED-Driver:

- OTDA4031 DRIVER DALI 30W/550-750mA IP20
- OTNA4034 DRIVER 30W/700mA IP20

#### Notes

- The LED T8 Neo Tube is polarity-neutral. To ensure the function, it is only necessary to make sure that one pole is connectet with each end of the tube. The contacts at the respective ends are bridged.
- Due to the splinter protection, the tube can also be used for the illumination of food production plants.
- The specified service life is also achieved at the highest permissible operating current.
- If the current exceeds the permissible operating current range, the warranty does not apply.

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