



LED T8 Neo 36 - 840				
Operating current	Voltage	Power	Luminous efficacy	Luminous flux
1 000 mA	20.2 V	20.2 W	169 lm/W	3 418 lm
950 mA	20.1 V	19.1 W	170 lm/W	3 258 lm
900 mA	20.1 V	18.1 W	171 lm/W	3 099 lm
850 mA	20.0 V	17.0 W	173 lm/W	2 939 lm
800 mA	20.0 V	16.0 W	174 lm/W	2 779 lm
750 mA	19.9 V	14.9 W	175 lm/W	2 620 lm
700 mA	19.9 V	13.9 W	177 lm/W	2 460 lm
650 mA	19.8 V	12.9 W	178 lm/W	2 288 lm
600 mA	19.7 V	11.8 W	179 lm/W	2 116 lm
550 mA	19.7 V	10.8 W	180 lm/W	1 944 lm
500 mA	19.6 V	9.8 W	181 lm/W	1 772 lm



C



13.9



4000K




70 000h



Dimmable



General Data

Article No.	43719850
Code	LED T8 NEO 36 840/G13
Product EAN	4008597198502
Customs tariff no.	85395200
Box quantity (pcs.)	25
EAN Box	4008597498503
Gross weight of box in kg	6.2
Length of box in m	1.27
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	160 g
Product status	 Active

Electric Parameters

Nominal power	13.9 W
Rated wattage	13,9 W

Electric Parameters

Weighted energy consumption in 1,000 hours	14 kWh
Nominal voltage	19-21 V
Voltage type	DC
Nominal current	500-1000 mA
Nominal current (mA)	700 mA

Light Application Parameters

Rated luminous flux acc. IEC 62722-2-1	2460 lm
Luminous flux	1772-3418 lm
max. luminous flux	3418 lm
max. luminous flux at	1000 mA
Beam angle	160 °
Luminous efficiency	177 lm/W
Radium light colour	coolwhite
Color temperature	4000 K
Color coordinate X	0.380
Color coordinate Y	0.380
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	C
Diameter	28.5 mm
Tube diameter	25.4 mm
Length max.	1213 mm
Length	1200 mm
Length	1200 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	160 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	OTDA4031, OTNA4034

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, neutral white light, glass bulb, base G13. Exchange for fluorescent lamps.

Please, refer to 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

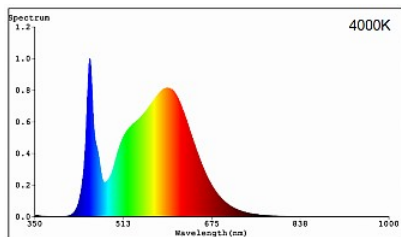
Spectrum

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.

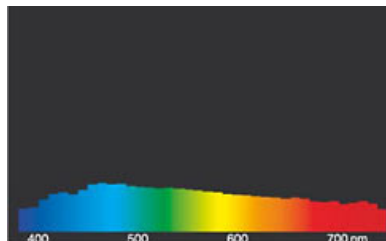
The colour of coloured LEDs depends on the chemical elements within the light generating chip. The coloured light is generated directly and does not need filtering.

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.

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



LED-NEO-Tubes 4000K, 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.

® = Registered trademark

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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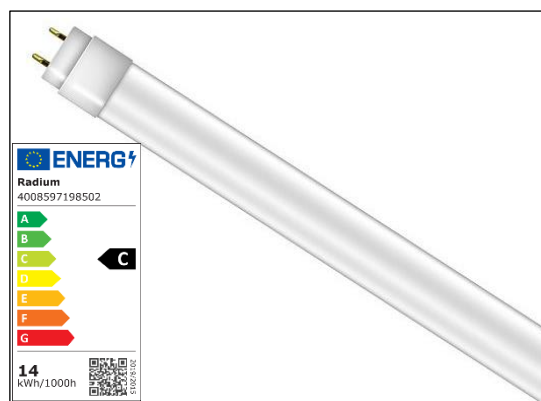
Technical information

LED T8 NEO 36

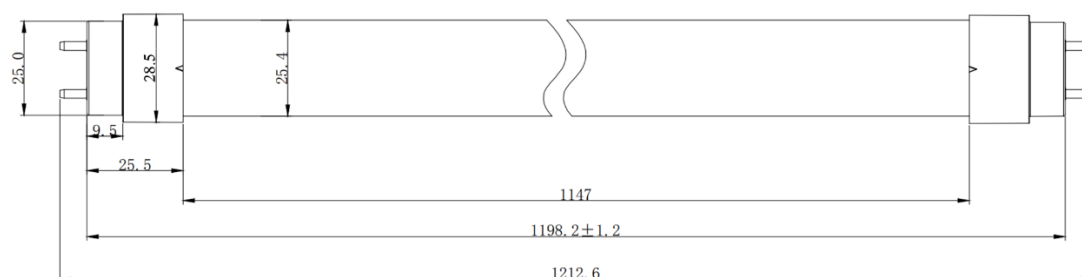
LED T8 Neo Tube for the replacement of 36W T8 fluorescent lamps and operation on constant current LED drivers. Not suitable for operation on ECGs, CCGs or mains voltage. The tube is made of frosted glass and has a shatter protection. Variable luminous flux (up to 3418lm) which depends on the current. 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:

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



Drawing



Technical Data

General data

Code	LED T8 NEO 36 840/G13	LED T8 NEO 36 865/G13
Article No.	43719850	43719851
EAN10	4008597198502	4008597198519
EAN40	4008597498503	4008597498510
Weight [g]	160 g	160 g
Length [mm]	1213 mm	1213 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
Servie life L70/B10 @Ta(max.)	100,000 h	100,000 h
Energylabel A to G	C	C
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

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Information no. 9902-01-2112

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Technical information

Rated power* [W]	13,9 W	13,9 W
Voltage [V DC]	19 - 21 V	19 - 21 V
Operating current [mA]	700 mA	700 mA
Permissible output current [mA]	500 - 1000 mA	500 - 1000 mA
Dimmable	yes	yes
Energy consumption in 10.000h* [kWh]	14 kWh	14 kWh
Operable number with one OTDA4031	1 – 2 pcs	1 – 2 pcs
Operable number with one OTNA4034	2 pcs	2 pcs

* @700mA

Photometric Parameter

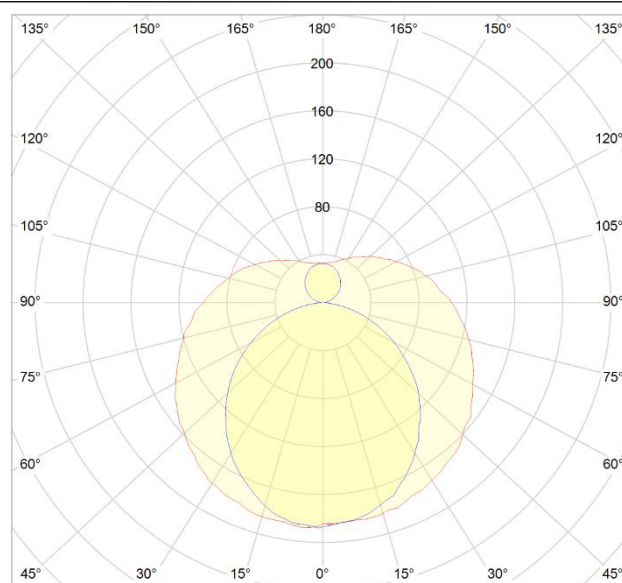
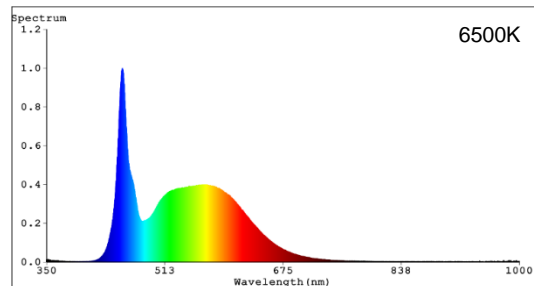
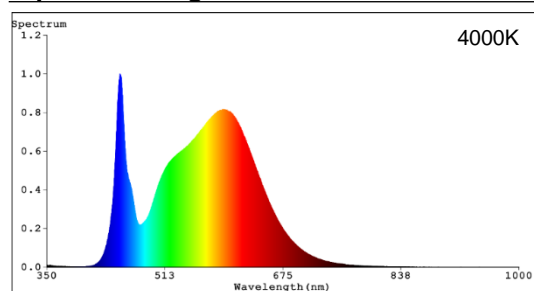
Rated luminous flux* [lm]	2460 lm	2422 lm
Beam angle [°]	160 °	160 °
Luminous efficiency* [lm/W]	177 lm/W	174 lm/W
Color temperature [K]	4000 K	6500 K
Color rendering index [CRI]	≥ 80	≥ 80
Color stability	≤ 5 SDCM	≤ 5 SDCM
Color stability typical	3 SDCM	3 SDCM

* @700mA

Operating current table

Operating current	Voltage	Power	Luminous efficacy 4000K	Luminous flux 4000K	Luminous efficacy 6500K	Luminous flux 6500K
1.000 mA	20,2 V	20,2 W	169 lm/W	3.418 lm	167 lm/W	3.368 lm
950 mA	20,1 V	19,1 W	170 lm/W	3.258 lm	168 lm/W	3.210 lm
900 mA	20,1 V	18,1 W	171 lm/W	3.099 lm	169 lm/W	3.053 lm
850 mA	20,0 V	17,0 W	173 lm/W	2.939 lm	170 lm/W	2.895 lm
800 mA	20,0 V	16,0 W	174 lm/W	2.779 lm	171 lm/W	2.737 lm
750 mA	19,9 V	14,9 W	175 lm/W	2.620 lm	173 lm/W	2.580 lm
700 mA	19,9 V	13,9 W	177 lm/W	2.460 lm	174 lm/W	2.422 lm
650 mA	19,8 V	12,9 W	178 lm/W	2.288 lm	175 lm/W	2.253 lm
600 mA	19,7 V	11,8 W	179 lm/W	2.116 lm	176 lm/W	2.083 lm
550 mA	19,7 V	10,8 W	180 lm/W	1.944 lm	177 lm/W	1.914 lm
500 mA	19,6 V	9,8 W	181 lm/W	1.772 lm	178 lm/W	1.744 lm

Spectrum / Light distribution



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Information no. 9902-01-2112

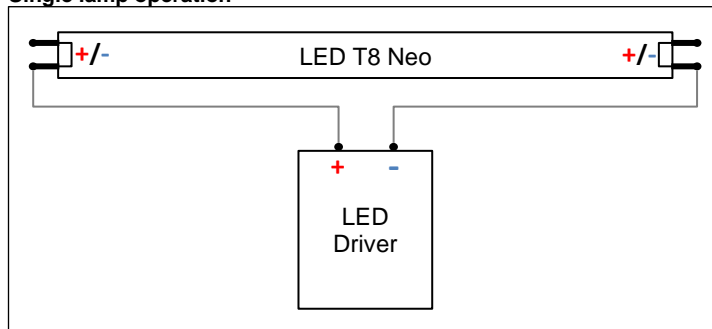
Validity: The technical information sheets (TI sheets) are updated at irregular intervals! The user is responsible for the validity and up-to-dateness of this TI sheet. With the publication of this TI sheet, all previous editions for this lamp type lose their validity.

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Technical information

Wiring diagram

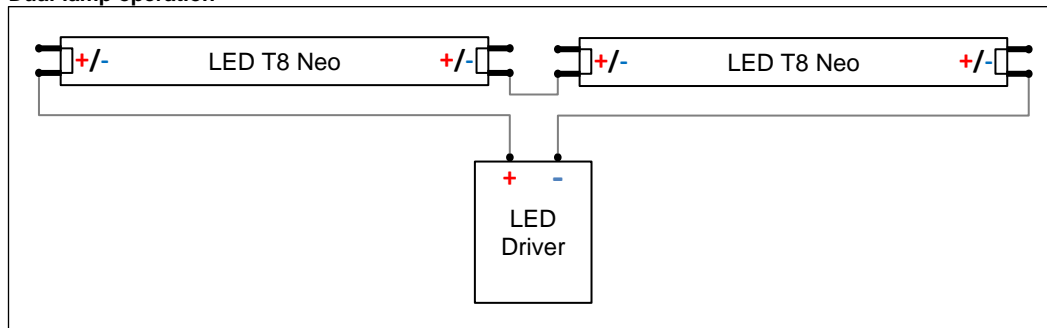
Single lamp operation



Recommended Radium LED-Driver:

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

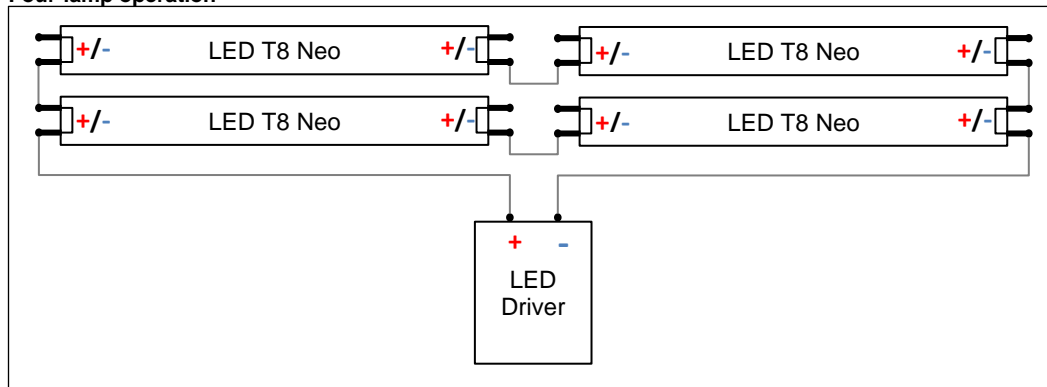
Dual-lamp operation



Recommended Radium LED-Driver:

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

Four-lamp operation



Recommended Radium LED-Driver:

- OTDA4032 DRIVER DALI 60W/1100-1500mA IP20
- OTNA4035 DRIVER 50W/1200mA 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 connected 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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