



Radium
Die Lichtmarke

GAME CHANGER

The end of the fluorescent tube is the beginning of something big.

Your luminaires will keep current.

www.radium.de/led-t8-neo

Radium LED T8 Neo.

Brings light into the future.

- ✓ Increase in efficiency: up to 180 lm/W
- ✓ Super bright: up to 5,180 lm per lamp
- ✓ Extremely long service life: up to 70,000h L80B10
- ✓ 5 years guarantee
- ✓ future-proof by DALI control
- ✓ flicker-free
- ✓ dimmable
- ✓ suitable for Emergency power
- ✓ Low-priced
- ✓ TÜV certified



LED T8 Neo.

That's how it works!

Unique product concept: robust, external Radium driver instead of integrated mini-driver.

Radium LED T8 Neo

- + Very high efficiency up to 180 lm/W
- + High luminous flux up to 5,180 lm
- + Flicker-free lighting



Radium LED Driver

- + One Radium LED Neo driver DALI can control up to 4 Radium LED T8 Neo.
- + External driver creates space for high quality technical components which are not usable in mini driver format.
- + High reliability
- + No compatibility check



A man with a beard and short hair, wearing a dark red jacket, holds a long, glowing white LED light tube diagonally across his body. The light tube has the word "Radium" printed on its end. He is standing in front of a large, modern building with a glass facade. The building's interior lights are on, and the glass reflects the city lights. The scene is at night, with a dark sky and some light trails from passing vehicles in the foreground.

Keep current.

Dimmable, suitable for emergency power and DALI capable.

T8 Neo has convinced me.

Frank Krock, Electrician

Radium LED T8 Neo

DALI-Capable & Dimmable.

Dare the jump into the future with existing luminaires.

A unique product concept like there is no other on the market.

- Radium DALI2 Driver make your LED tubes controllable via DALI.
- Integration into an IoT network.
- LED T8 Neo luminous flux can be adjusted to one's own needs.
- Before installation, use the driver to determine whether less or more light is required than before the conversion.
- Dimmability of the LED tubes by operation with these LED drivers – in order to adjust the brightness of your system according to your wishes.

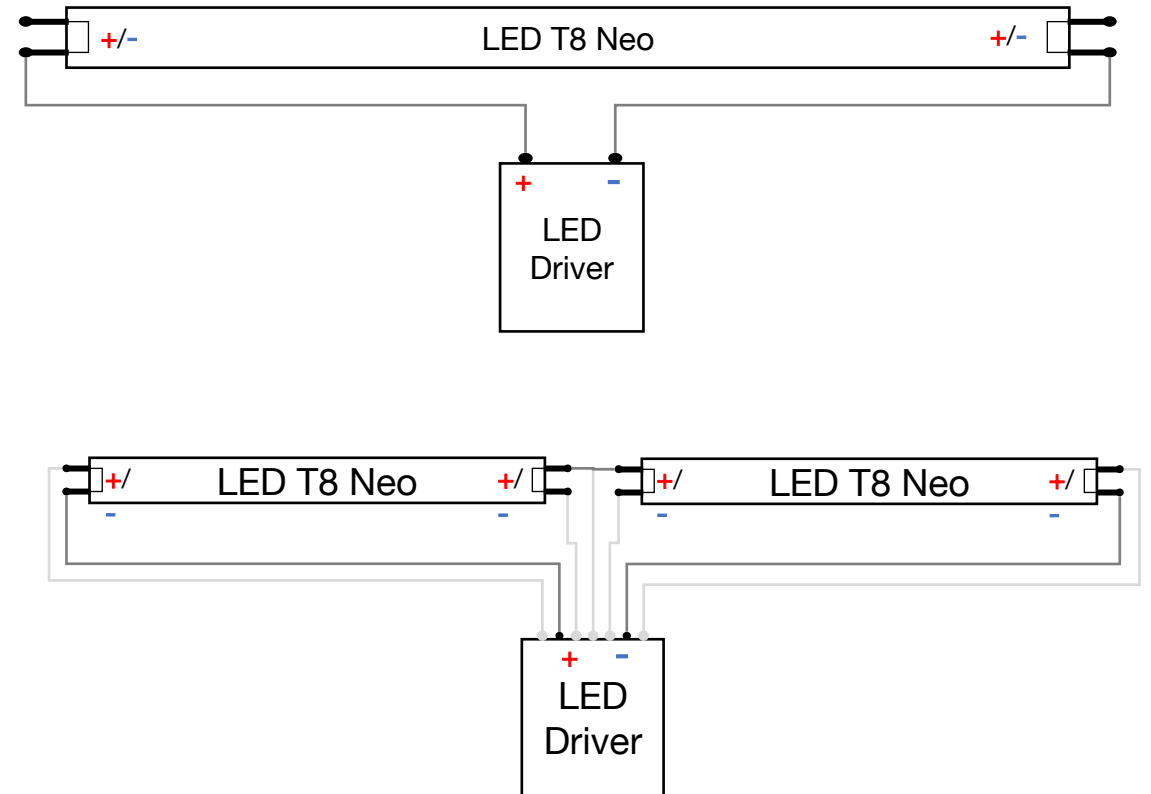


LED Neo Driver.

The secret of a big number of functions.

- Radium LED drivers replace existing ECGs/CCGs 1:1
- Quick and easy conversion without additional power lines
- Connect **one, two or four** LED T8 Neo Tubes to one LED Driver
- Can be integrated into safety lighting systems (due to DC operation)
- High quality and reliable products for your lighting project

Connecting example:



Suitable for emergency power and certified.

Safe is safe.



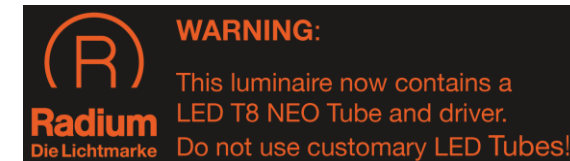
- Suitable for installation in emergency power systems according to IEC 61347-2-13, Annex J
- DC capable driver → Radium LED T8 Neo continues to emit the same brightness even if the power supply is switched to DC in the event of a fault
- TÜV Süd ENEC certified
- Safety extra-low voltage (SELV) ensures high operational safety

The responsible master electrician certifies the safe and standard-compliant operation of the retrofitted luminaire with LED T8 Neo with the specialist contractor declaration.

System reliability after modernization is significantly higher than before!



SELV



Additional sticker for marking the luminaire is included in the package.



Keep current.

**T8 Neo brings our luminaires to the future:
efficient, 70,000 h lifetime, resource-saving.**

Katharina Lotzek, Purchasing

Radium LED T8 Neo

LED T8 Neo.

Convincing even in comparison with classic retrofit solutions.

Advantages LED Tube

- Retrofit - easy replacement without changing the luminaire.
- Inexpensive



VS.

Advantages LED T8 Neo

- Dimmable via DALI or Push&DIM*
- Suitable for emergency power
- Higher efficiency and lifetime
- Higher and flexibly adjustable luminous flux
- Flicker free light
- No compatibility problems
- Components of higher quality / even higher reliability



LED T8 Neo.

Comparison with LED luminaires.

Advantages LED luminaire

- Possibly better beam control
- Consists entirely of new and "unused" components
- Possibly more modern design

Advantages LED T8 Neo

- Much more sustainable due to keeping the old luminaires/ fixtures/holders and due to the choice of materials
- Significantly cheaper in purchasing
- No commitment to one luminaire manufacturer
- Less effort (driver replacement vs. uninstalling luminaires and installing completely new luminaire system)
- Easier and cheaper replacement of components

Comparable

- Efficiency
- Illuminance
- Product life



VS.





One lamp for everything.

Adjustable luminous flux, modular functionality.

Cost consciousness, efficiency and resource conservation are practically woven into the DNA of the new Radium LED T8 Neo. Witness the many advantages:

- **Optimized, highly efficient storage** thanks to the modular system of driver and lamp, as well as variable luminous flux
- **Sustainable and resource-saving** by modernizing and continued use of existing luminaires
- **Short delivery times** when converting to Radium LED T8 Neo instead of long waiting times when ordering new LED luminaires

Low effort.

Great effect.

- Quick and easy conversion: install new driver, screw in LED T8 Neo - done!
- **Big advantage:** free choice of light source thanks to T8 standard in the long term
→ Luminaire and light source are not inseparable, so in case of defect, complete replacement with assembly effort and electrical scrap is **not** necessary

Sustainability by design: 1,150 tons less waste per 1,000 points of light.

- a) Continue to use the luminaire and make it technically future-proof instead of disposing of it. This saves approx. 2,000 kg of waste per 1000 light points!
- b) Even after the end of service life, the amount of waste is low. Compared to replacing a luminaire insert, they save again about 700 kg of waste for 1,000 light points.



High operational safety.

Glass and shatter protection.



- Material: **Glass**
- Straight appearance thanks to rigid glass bulb, while plastic LED tubes sag quickly or bend under heat
- **Shatter protection** for high protection during transport and operation
 - The bulbs are more resistant and even if a bulb should break, fragments do not come out
 - Suitable for use in the food industry (IFS)



Keep current.

**We have cleverly retrofitted with the T8 Neo:
Low acquisition costs and big savings.**

Christian Hoffmann, CEO

Radium LED T8 Neo

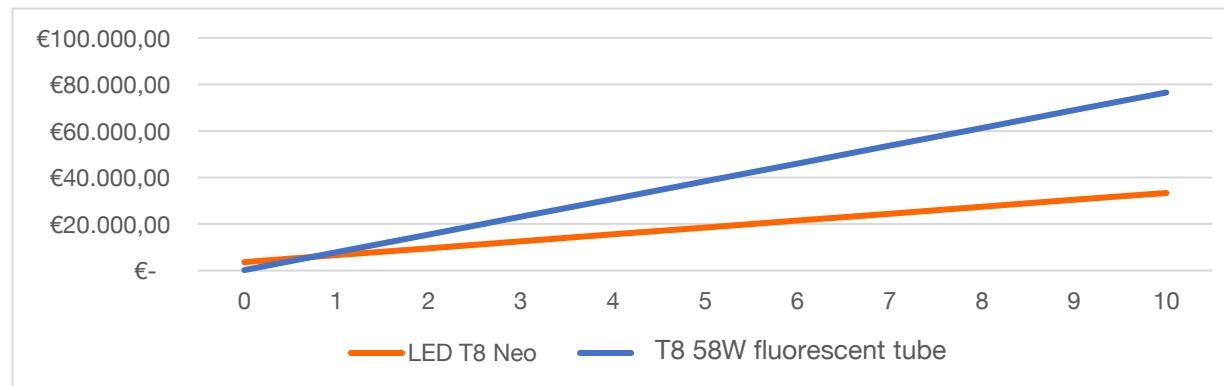
Low investment.

Fast amortization.

- Invest little - save a lot: All working T8 luminaires can be used
- Over **60% lower** investment costs compared to a LED continuous row system

	LED T8 Neo	LED Luminaire
Number of luminaires (pcs.)	40	40
Number of lamps per luminaire (pcs.)	2	1
Changeover time per luminaire (min.)	12	20
Personnel costs/hour	70,00 €	70,00 €
Investment per luminaire DALI (RRP)	110,70 €	304,90 €
Total investment costs	4.988,00 €	13.129,33 €

- Fluorescent lamp replacement pays for itself after just **8.8 months**



Radium LED T8 Neo.

Use the LED advantage against high electricity costs.

- Around 50% lower energy consumption than conventional fluorescent tubes with the same luminous flux (in some luminaires even up to 80%)
- Further reduction of power consumption possible through efficient lighting management: via DALI, Push&DIM or setting the luminous flux directly on the driver

Radium LED T8 Neo lasts longer: reduce maintenance intervals.

- 70,000 light hours provide almost 8 years of non-stop illumination (LED T8 Neo and driver)
- 5 years guarantee on drivers and LED tubes

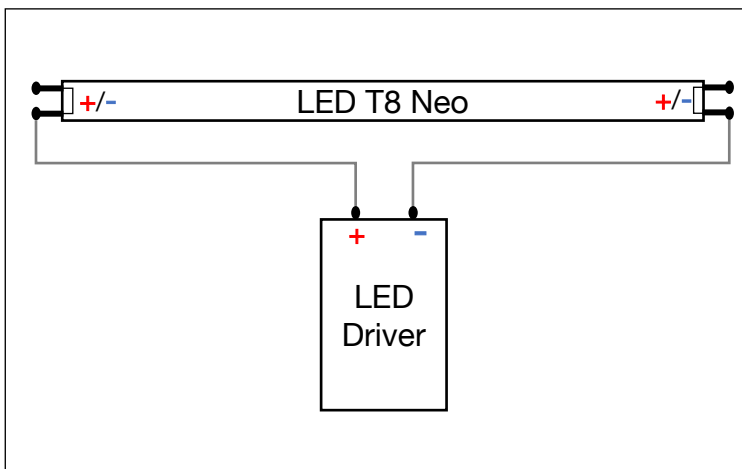
LED T8 Neo.

The portfolio.



Features

- **Dimmable** via DALI or Push&DIM*
- Very efficient with up to **180 lm/W**
- Super bright: very **high luminous flux**
- **Luminous flux** can be **adjusted flexibly**
- Flicker-free light
- With splinter protection and TÜV certification
- Easy to wire up
- Polarity neutral



	LED T8 Neo 18	LED T8 Neo 36	LED T8 Neo 58
Power (min./rated /max.)	3.8 / 6.9 / 11 W	9,8 / 13.9 / 20.2 W	20 / 24.3 / 30.8 W
Luminous flux** (min./rated /max.)	716 / 1215 / 1875 lm	1772 / 2460 / 3418 lm	3550 / 4200 / 5180 lm
Efficiency** (min./rated /max.)	186 / 176 / 170 lm/W	181 / 177 / 169 lm/W	178 / 173 / 168 lm/W
Operating current (min./rated /max.)	200 / 350 / 550 mA	500 / 700 / 1000 mA	1000 / 1200 / .500 mA1
Voltage	18.5 – 20.5 V	19 – 21 V	19.5 – 21.5 V
R_a	>80	>80	>80
Lifetime L80B10	70.000 h	70.000 h	70.000 h
Guarantee	5 Years	5 Years	5 Years
Material	Glass	Glass	Glass
Splinter protection	Yes	Yes	Yes
Diameter*Length	28*600 mm	28*1.200 mm	28*1.500 mm
Color temperature	4000K, 6500K	4000K, 6500K	4000K, 6500K

* With Radium DALI drivers

**at 4000K

LED T8 Neo. Radium DALI Driver.



Features

- Dimmable via DALI or Push&DIM
- Adjustable output current via dip switch
- High efficiency: 84-89%
- Protection class I
- Flicker-free
- Very long lifetime of up to 70.000 h
- SELV
- ENEC certified

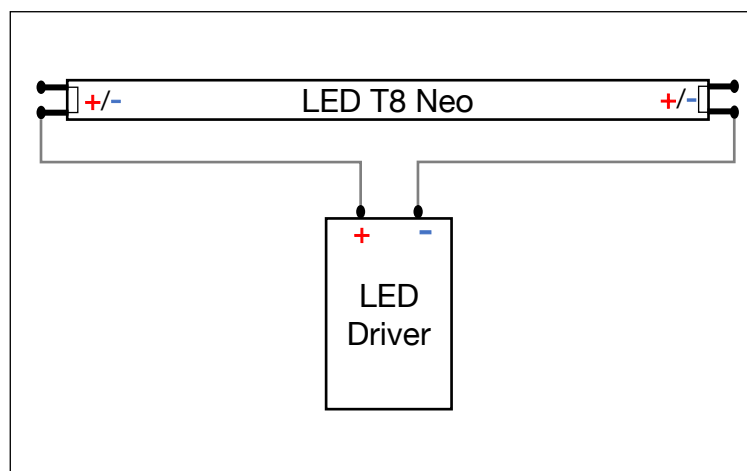


DRIVER DALI 15

DRIVER DALI 30

DRIVER DALI 60

	DRIVER DALI 15	DRIVER DALI 30	DRIVER DALI 60
Max. Power (W)	14,7	31,5	63,0
Compatible Neo tubes	1 x 600 / 2 x 600	1 x 1.200 / 2 x 1.200	1 x 1.500 / 2 x 1.500
Efficiency (%)	≥84	≥87	≥89
Output current (mA)	200 – 350	550 – 750	1.100 – 1.500
Output voltage (V DC)	16 – 42	18 – 44	19 – 44
Mains voltage (V AC)	220 - 240	220 - 240	220 - 240
Lifetime (h)	70.000	70.000	70.000
Guarantee	5 Years	5 Years	5 Years
Material	Metal	Metal	Metal
Ambient temperature (°C)	-30°C...+50°C	-30°C...+50°C	-30°C...+50°C
Dimensions (mm)	195*30*21	245*30*21	285*30*21
Dimming interface	DALI 2, Push&DIM	DALI 2, Push&DIM	DALI 2, Push&DIM



LED T8 Neo.

Adjustable luminous flux LED T8 Neo 58.



Adjust the luminous flux by setting the DC driver:

- Luminous flux of each LED T8 Neo Tube can be adjusted on the DALI driver by the customer via dip switches.
- ON/OFF drivers are supplied with 1,200mA as standard, but can be set to other currents on a project-by-project basis during installation.
- Various luminous fluxes from 3875 lm to 5180 lm* can be retrieved with Radium LED T8 Neo 58 840.



Current	1	2	3	4
1100mA	ON	-	-	-
1150mA	-	ON	ON	ON
1200mA	-	ON	ON	-
1250mA	-	ON	-	ON
1300mA	-	ON	-	-
1350mA	-	-	ON	ON
1400mA	-	-	ON	-
1450mA	-	-	-	ON
1500mA	-	-	-	-

Adjustable currents via dip switches on the DALI driver

Current	Power	Efficiency	Luminous flux
1.500 mA	30.8 W	168 lm/W	5180 lm
1.450 mA	29.7 W	169 lm/W	5017 lm
1.400 mA	28.6 W	170 lm/W	4853 lm
1.350 mA	27.5 W	170 lm/W	4690 lm
1.300 mA	26.5 W	171 lm/W	4527 lm
1.250 mA	25.4 W	172 lm/W	4363 lm
1.200 mA	24.3 W	173 lm/W	4200 lm
1.150 mA	23.2 W	174 lm/W	4038 lm
1.100 mA	22.1 W	175 lm/W	3875 lm



LED T8 Neo.

Radium driver ON/OFF.

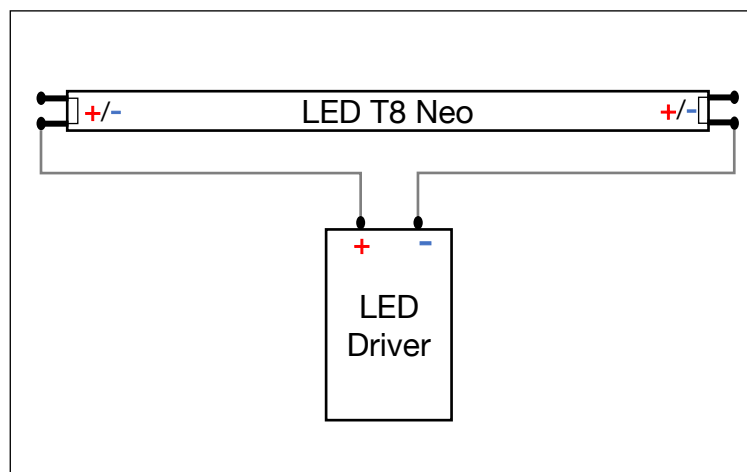


Features

- High efficiency: 87-90%
- Protection class I
- Flicker-free
- High lifetime of 70.000 h
- SELV
- Suitable for DC operation (200 - 280 V) for use in emergency power systems
- Strong price-performance ratio
- ENEC certified



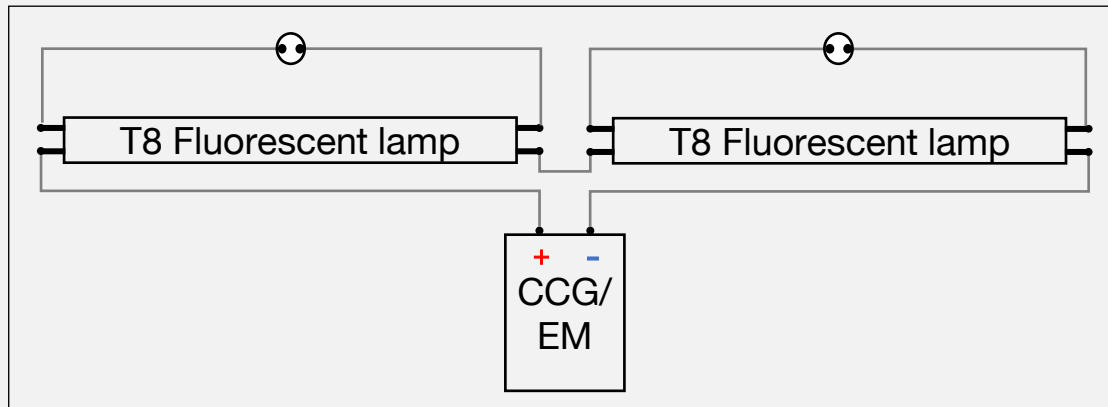
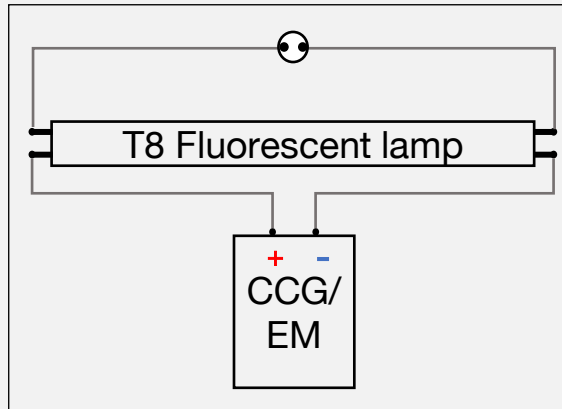
	DRIVER 15W/350mA	DRIVER 30W/700mA	DRIVER 50W/1200
Max. Power (W)	14.7	29.4	50.4
Compatible Neo tubes	2 x 600	2 x 1200	2 x 1500
Efficiency (%)	≥87	≥87	≥90
Output current (mA)	350	700	1200
Output voltage (V DC)	33 – 42	33 – 42	33 – 42
Mains voltage (V AC)	220 - 240	220 - 240	220 - 240
Lifetime (h)	70,000	70,000	70,000
Guarantee	5 Years	5 Years	5 Years
Material	Metal	Metal	Metal
Ambient temperature (°C)	-30°C...+50°C	-30°C...+50°C	-30°C...+50°C
Dimensions (mm)	156*30*20	195*30*20	245*30*21
Dimming interface	-	-	-



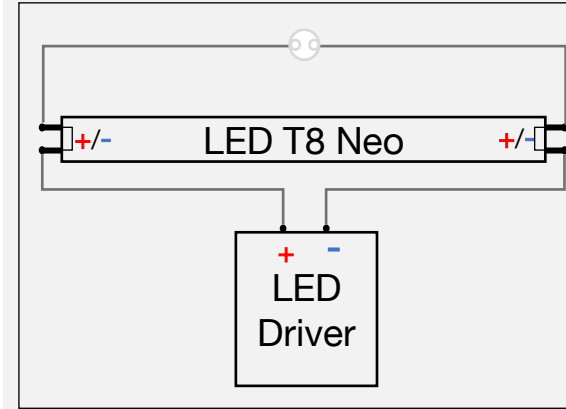
LED T8 Neo.

Rewiring for CCG luminaires.

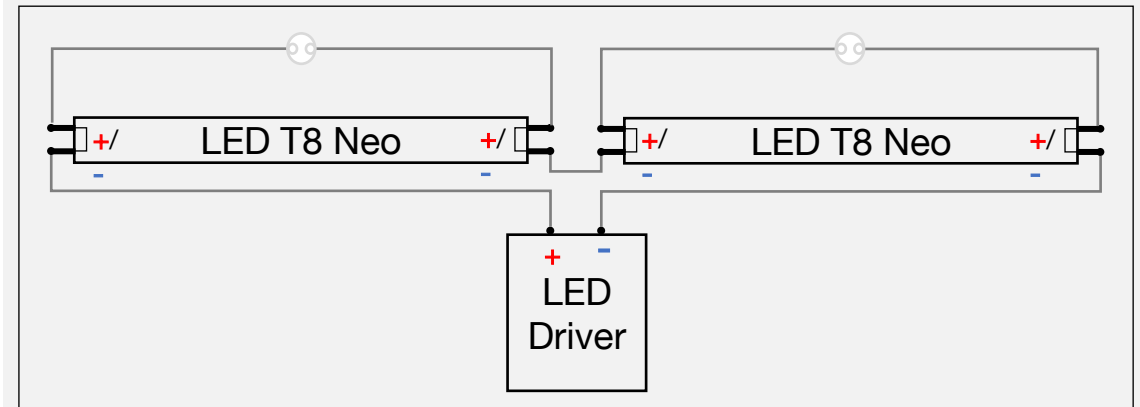
Conventional wiring CCG



Wiring LED T8 Neo Tube



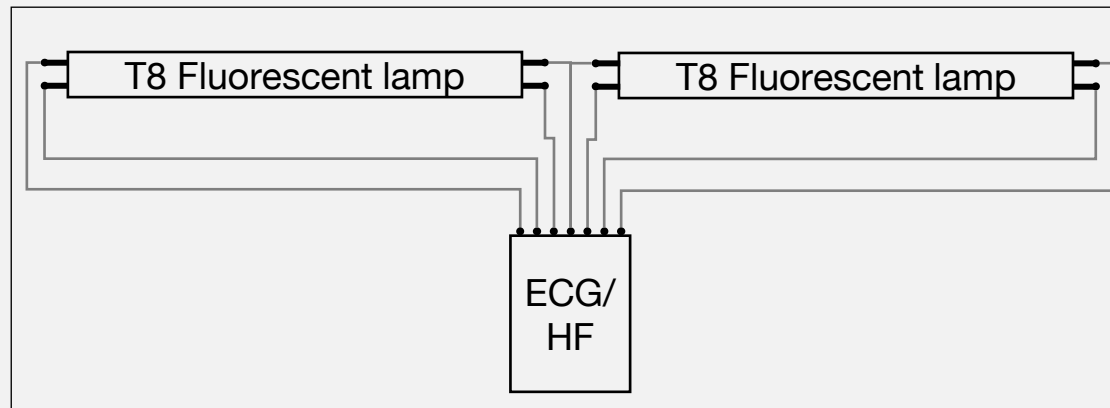
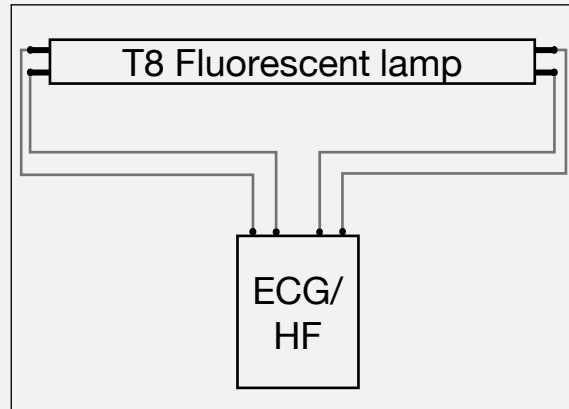
- Replace CCG 1:1 with Radium LED driver
- Remove starter
- Insert LED T8 Neo Tube



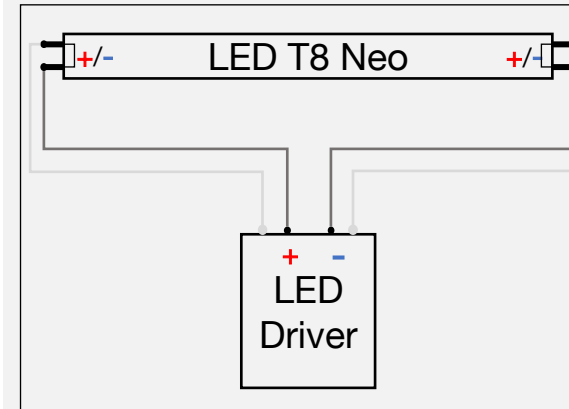
LED T8 Neo.

Rewiring for ECG luminaires.

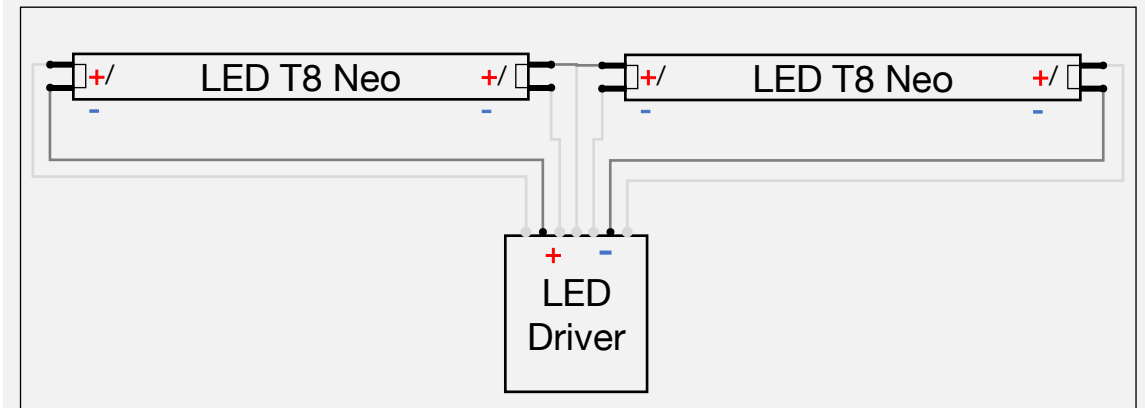
Conventional wiring ECG



Neo Tube wiring



- Replace the electronic ballast 1:1 with the Radium LED driver.
- Remove wires that are no longer in use
- Insert LED T8 Neo Tube



Do you need support for large projects? Just get in touch with us. We are happy to help!



customerservice@radium.de

Thanks.

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