



# Instruction Manual

## LPZ 211 D

## LPZ 215 D

E.211.215. 201910



### Advice before Use

- Read this instruction carefully.
- As soon as the equipment is delivered, open the packing and inspect the equipment carefully. If you notice any damage, contact the transport company immediately and register your complaint in due form listing the defects.
- We can assure you, that this equipment left our factory in perfect condition.
- Check if the received equipment is consistent with the delivery notice and if the delivery notice is consistent with your order. If it is not, immediately contact your supplier.
- **Electrical connection from the spotlight :** **1. First Spotlight <-> PSU (Harting (square plug))**  
**2. Second PSU <-> power supply (Powercon True1® (round plug))**

### General Remarks

This luminaire is lighting equipment designed for professional indoor use in theaters and television- or film studios. Designed and built in accordance with EN 60950 and EN 60598-17 regulations, it must imperatively be connected to earth by means of its earth wire.

To prevent any electrical shock, this equipment should not be opened when it is powered.

### Nevertheless:

- Any parts or lenses need to be replaced if they are visibly damaged and their efficiency might be reduced, e.g. in case of deep cracks or scratches.
- The luminaire must be maintained if some unexpected failures occur. The lamp must be changed if damaged or distorted by heat.

If internal access is needed for control, service or repair purposes, always refer to qualified personnel. Always be sure to unplug the power supply cable before opening the fixture.

### **ATTENTION: LETHAL VOLTAGE PRESENT INSIDE !**

It is the user responsibility to use the luminaire for intended purpose and to check the equipment that might be connected to it.

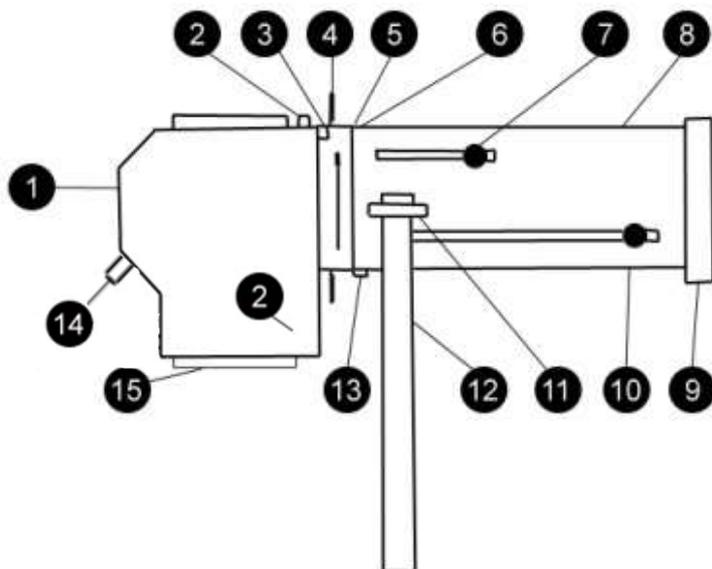
The luminaire can under no circumstances be modified. Niethammer Lichttechnik GmbH will not assume any responsibility in case of damage resulting from modifications made to the luminaire.

This luminaire is a piece of professional equipment designed for easy and simple use. Always refer to qualified personnel for any using, installation or repair work. Avoid installing the luminaire near inflammable matters. Minimum distance between luminaire and inflammable matters is 3,2m.

### Important Remark:

Power supply cables and other connections are essential for your equipment and contribute greatly to a safe and trouble free operation.

- Always pull the plug from the PSU cable when disconnecting a cable, never pull the cable.
- Never use cables and connectors in bad conditions, check them before installation and periodically thereafter
- Never tie power supply and data cables together.



## Installation and Overviews

The luminaire can be used in hanging and upright position, the PSU only in hanging position, beside the yoke or with the bracket on a bar (needed clamp not included).

The Yoke (12) has five fixing holes (4x11mm, 1x13mm diameter).

1. Lamp Housing
2. Rear section Screw's to open the lamphouse
3. Accessory slot
4. Beam Shaper
5. Iris
6. Friction point 180
7. Focus
8. Front lenses tube
9. Filter Frame Holder
10. Zoom
11. Tilt locking handle
12. Yoke
13. Friction adjustment Lamp housing
14. Handle
15. Axial fan

This luminaire can be suspended from a bar by a hook clamp; it can also be mounted on a stand.



If necessary, a DIN type BN155 plate can be screwed to the yoke.

With the help of the base plate BN155, the fixture can be mounted on special tripods or other system parts according to DIN 15560. The center hole can be used for attachment hooks or spigots of a standard fixture.

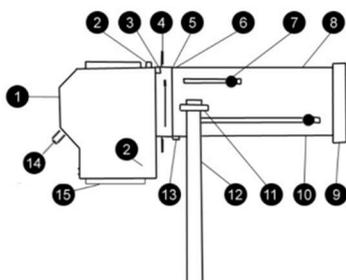
If the fixture is changed from the standing mounting position to a hanging position (or vice versa), the yoke can be swung backwards over the lamp housing by releasing the tilt lock. **Never** use the headlight with its top side down.

### Electrical Connection and fitting the PSU

1. Always follow local electrical codes
2. ENILED must not be put into operation on a dimmed output. It has to be continuous voltage.
3. This luminaire is designed for operating at a nominal voltage of 80-264 VAC, 47-63 Hz.
4. The fixture is equipped with a 2.5m long rubber cable with 4x1,5qmm cores and a square connector incl. earth connection contact, this connector is to be used only on the designated PSU.
5. The power supply is enclosed with a 2.5m long cable, which is provided with a detachable connection of the Powercon True 1 type. The power supply can be attached to the side of the yoke and secured to the eyelet with a safety rope, also provides an angle, so that the PSU can also be attached to a hook or the like, the safety cable must also be attached. The PSU MUST be operated vertically (connectors must face down) and must not be placed or placed on the ground, or fastened above a heat source.
6. The lightsource is a COB (Chip on board) with 490W power. The color temperatures are 3,000K and 5,000K, as indicated on the nameplate of the fixture. The fixture is equipped with temperature-controlled, low-noise axial fans.
7. The lamp housing (see drawing point 1) is provided with a hinge and can easily be opened by loosening the screw (-s) (see drawing point (-s) 2). To open the lamp house is first pulled away from the heat sink and can then be tilted.
8. Disconnect the fixture completely from the electrical supply before opening the lamp housing. Disconnect the connecting lead from the power supply AND the connecting lead from the fixture. The lamp house contains both the control and power electronics, the LED and the condenser lenses.
9. The LED and temperature sensor are attached to the heat sink, which is factory-mounted in the rearmost position (furthest away from the tube (equipped with the zoom and focus lens)). Be sure to properly position the heat sink after maintenance / cleaning, otherwise the light output and quality will be reduced.

Since the optical system is factory-set, no adjustments need to be made to it. If, however, the optical system is blocked for any reason, please contact our service team.

### Parts of the optical system



The plane of projection, you can find between lamp housing (1) and the front lenses tube (8). Here you can find the Iris (5), the accessory slot (3) and the beam shaper (4). To put the Iris in and out, you must loosen the M3 screw. With the Iris it is possible to modify the diameter of the light. The beam shapers are mounted on 4 different levels, which make it possible to create different shapes, e.g. a triangle.

The both zoom lenses are used to create the light output. With the zoom lens (10) you assign the light diameter, moving the lens back and forward. With the focus lens (7) you can sharpen the light output. Die beiden Zoom-Linsen geben das gewünschte Lichtbild. Die Frontlinse (10) wirkt auf die Abbildungsgröße durch Vor- und Zurückbewegen, während die Fokulinse (7) die gewünschte Bildschärfe beeinflusst.



### Rotation of lamp housing, sliding diaphragm and projection insert module for Gobos

With the handle the lamp house is turnable  $\pm 22^\circ$  and can be fixed 9-fold with the friction adjustment(13). Rotation of the lamp house  $360^\circ$  endless is possible, too.



With the handle on the sliding diaphragm and projection insert (on the left and right), the complete unit can be rotate  $\pm 42^\circ$ .



**IMPORTANT**  
The gobo must be inserting with the "H" backwards (in direction lamp house).

### Remarks

- The smallest picture you get, moving the two lenses the longest way away from each other.  
To have the biggest picture, move the two lenses nearby each other in the middle of the lens tube
- If you want to defocus the light, you can use the zoom lenses. Move the one lens out of the sharpness or moving both lenses together.
- Be aware, that it is only allowed to use this method for a maximum moving the lenses  $\pm 30\text{mm}$  (outside the sharpness). There is the risk to have the focal point in the filter frame and destroy the filter, if you move the lenses in the front of the front lenses tube.  
Please use high temperature Filter Frames (like ROSCO-Supergel).

### Operation with Color Scrollers

Color Scroller can be used with a special adapter or mounted directly to the luminaire instead of the Filter Frame Holder (9). Be aware, using accessory in the Filter Frame Holder shift the balance point of the luminaire.

### Programming and operation of the spotlight on site



Installation



Intensity

### DMX connection

1. The DMX In- and Output is located on the backside from the lamphouse. If no additional DMX fixture is used, the DMX outlet must be terminated with a 120 Ohm resistor, to avoid disturbances in the DMX network.



### Setting the device with the encoder wheel with integrated push bottom

ENILED is activated by pressing the encoder wheel, selected by turning and confirmed by pressing the wheel.

The individual menu items are displayed either by a white cross in the red circle (function deselected) or by a white check mark in the green circle (function active). The settings are accepted with Exit in the corresponding menu. If different settings are available within the menu, they are selected by turning the encoderwheel and confirmed by pressing the wheel.

The following are the different menu options, please note that some of the functions are currently not available, so there is no claim to the functions.

DMX	8-bit 16-bit H-L 16bit L-H	(factory setting)  (at the moment without function)			
Manual	0-100%				
Setup	DMX Setup	Set Adress	Hold	factory setting "X"	from 1 to 506 as start adress adjustable
		Hold	Remember	factory setting "X"	the last intensity will stay if DMX signal get lost
		Set Preset	Remember	factory setting "X"	After switch on the last intensity will be played
		Response chan	Preset	factory setting "X"	After switch on the intensity from "Set Preset" intensity will be played
	Advanced Fx	NonDim chan		factory setting "0" (aus)	0-255
		Strobo chan	(derzeit ohne Funktion)		
		Pulse chan	(derzeit ohne Funktion)		
	Manual Setup	Enable	(derzeit ohne Funktion)		
		Remember	(factory setting)		Intensity can be changed by using the encoder wheel
	System Setup	LED Setup	Independence	Follow Independent Sequential	When switching on, the last intensity is displayed
			PWM Frequency	300 Hz 700 Hz 1200 Hz 2300 Hz 4100 Hz	
Setup	System Setup	LED Setup	LED Current	700 mA	
				1100 mA	
				1500 mA	
				1900 mA	(factory setting)
				2300 mA	
					Photobiological safety hazard class 1 (3.000K) or 2 (5.700K)
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	Response Time	30 ms 100 ms 300 ms 500 ms 700 ms 1000 ms	(factory setting)		
	Profiles	Quad Linear User	(factory setting)		
	Driver Mode	Pure PWM Pure Analogue Analogue->PWM	(factory setting)	Pure puls with modulation (PWM) control from the LED Pure current control of the LED The lower part of the dimming curve is controlled by current, the upper part by PWM	
	Display Setup	Auto off	factory setting "yes"	The display switch off after appx. 10s, after pushing the encoder wheel it will switch on	
	Service	Flip	factory setting "X"	Turn the display upside down	
		Reboot		The device is restarted, the set values are retained	
		Status		Operating time can be read	
		Reset Parameters		Reset to factory settings	
		Strobo Duty	10% 20% 30% (factory setting) 40% 50% 60% 70% 80% 90%		
		NonDim Level	10%-90%	50% factory setting	



### Maintenance and Servicing

1. Zoom Profiler do not need any maintenance. But dust deposits normally are unpreventable, so it is necessary to clean the optical parts of the luminaire frequently.

Lenses must be clean with a clean and soft cloth soaked with alcohol. Please, don't use chemical or other cleansing material. It is forbidden to touch the optical parts bare handed. The LED should only be cleaned with a fine brush, which can not damage the surface coating of the LED. The aspheric lenses must be changed every 2 to 3 years, to guarantee a maximum light output. To clean the zoom lenses, please open the door of the front lenses tube (2 screws).

2. The electronics are installed in the lower part of the lamp house, this can be cleaned with a vacuum cleaner with a brush attachment of dust.
3. DO NOT clean the fans with a vacuum cleaner as this can induce a voltage and damage the electronics, a soft brush is suitable for this purpose and then the fan blades of the fans are to be fixed for cleaning with a vacuum cleaner.
4. For the Iris, please don't use fat or oil.
5. Please check frequently all electrical cables, electrical and mechanical parts of the luminaire. Tighten the screws if needed. If you are not sure what to do, please contact our service team.
6. Maintenance and Servicing are the guaranty for a long economic life time and an optimum in light output.

### First Time Use

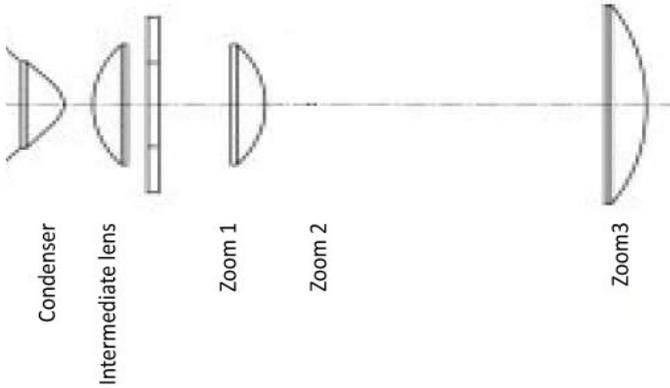
Using the luminaire the first time, do it in the following way:

- Open the Iris and pull out the beam shapers as far as possible
- Give full light for app. 15 minutes
- Close the iris for 1 minute, open it for 5 minutes, close it again for 1 minute , ...
- Same procedure for the shutters
- Doing this several times, please

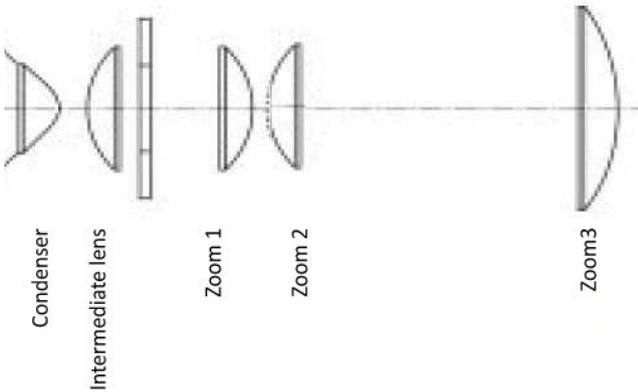


Optical System

LPZ 211 D



LPZ 215 D





## HPZ 215D

Photometric data									
2,000 W / 52,000 lm	Distance (m)	10.0	12.5	15.0	20.0	25.0	30.0	40.0	50.0
min. opening angle: 10°   ax.= 1,085,000cd	ø Dia. Light circle (m)	1.7	2.2	2.6	3.5	4.4	5.3	7.0	8.8
	Luminous intensity (lx)	10,850	6,944	4,822	2,713	1,736	1,206	678	434
max. opening angle: 22°   ax.= 274,000cd	ø Dia. Light circle (m)	3.9	4.9	5.8	7.8	9.7	11.7	15.6	19.4
	Luminous intensity (lx)	2,740	1,754	1,218	685	438	304	171	110

## HPZ 211D

Photometric data									
2,000 W / 52,000 lm	Distance (m)	10.0	12.5	15.0	20.0	25.0	30.0	40.0	50.0
min. opening angle: 15°   ax.= 577,000cd	ø Dia. Light circle (m)	2.6	3.3	3.9	5.3	6.6	7.9	10.5	13.2
	Luminous intensity (lx)	5,770	3,693	2,564	1,443	923	641	361	231
max. opening angle: 40°   ax.= 99,000cd	ø Dia. Light circle (m)	7.3	9.1	10.9	14.6	18.2	21.8	29.1	36.4
	Luminous intensity (lx)	990	634	440	248	158	110	62	40



### Important spareparts

Find more information about spareparts on our webpage: [www.emil-niethammer.de](http://www.emil-niethammer.de)

#### Spareparts for LPZ 211 D Standardversion

N200-454	LED 3.000K
N200-456	LED 5.700K
N100-551	Fan 12V
N130-707	Aspherical Condensorlens
N130-648	Intermediate lens 114mm diameter
N215-600	Iris diaphragm 80mm diameter
N215-440	Beam shaper unit 175mm diameter
N130-642	Zoom input lens 114mm diameter
N130-647	Zoom output lens 203mm diameter
N43-216	Rotary locking knob compl.
N215-900	Colour filter cassette
N70-459	Zoom focus knob
N215-520-ET-L	Complete mounting for aspherical condensorlens
N130-744	Neigungsfeststellgriff M10
N215-100L	Cover lamp house complete
N70-194	Handle lamphouse
N70-326	Knurled knob lamphouse M6
Nxx-xxx	Knurled knob lamphouse side Mx

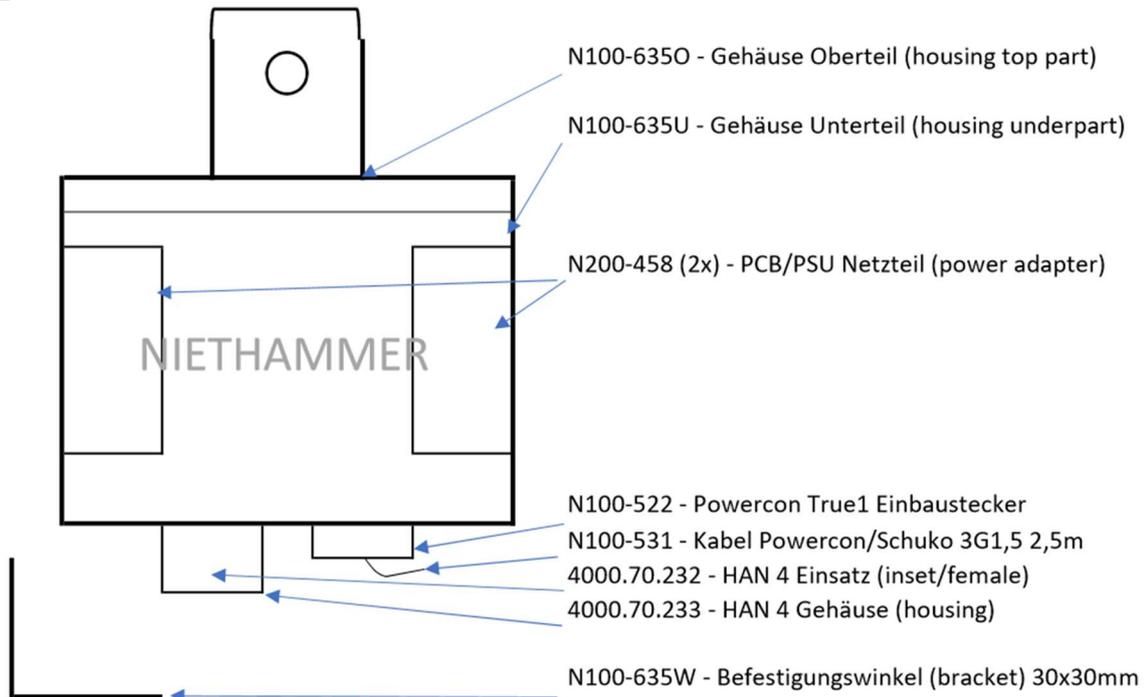
#### Spareparts for LPZ 215 D Standardversion

N200-454	LED 3.000K
N200-456	LED 5.700K
N100-551	Fan 12V
N130-707	Aspherical Condensorlens
N130-648	Intermediate lens 114mm diameter
N215-600	Iris diaphragm 80mm diameter
N215-440	Beam shaper unit 175mm diameter
N130-641	Zoom input lens 114mm diameter
N130-641	Zoom intermediate lens 114mm diameter
N130-648	Zoom output lens 203mm diameter
N43-216	Rotary locking knob compl.
N215-900	Colour filter cassette
N70-459	Zoom focus knob
N215-520-ET-L	Complete mounting for aspherical condensorlens
N130-744	Neigungsfeststellgriff M10
N215-100L	Cover lamp house complete
N70-194	Handle lamphouse
N70-326	Knurled knob lamphouse M6
Nxx-xxx	Knurled knob lamphouse side Mx



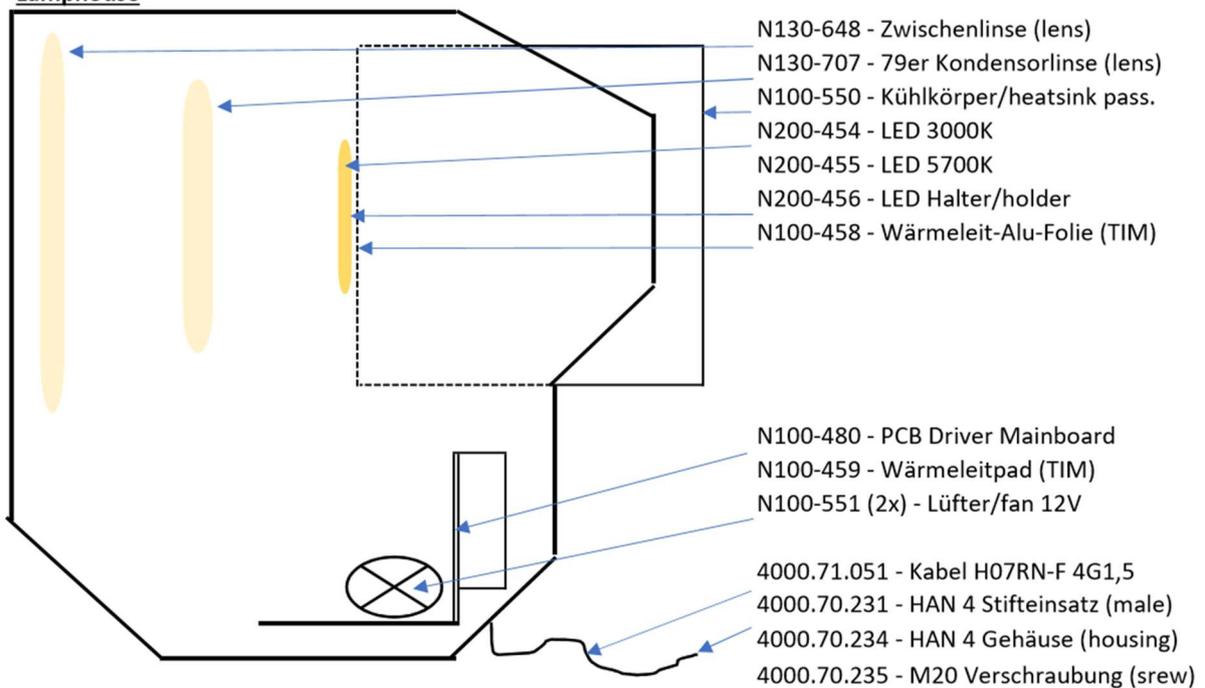
**Vorschaltgerät**  
**PSU**

N100-635



**Lampenhäus**  
**Lamphouse**

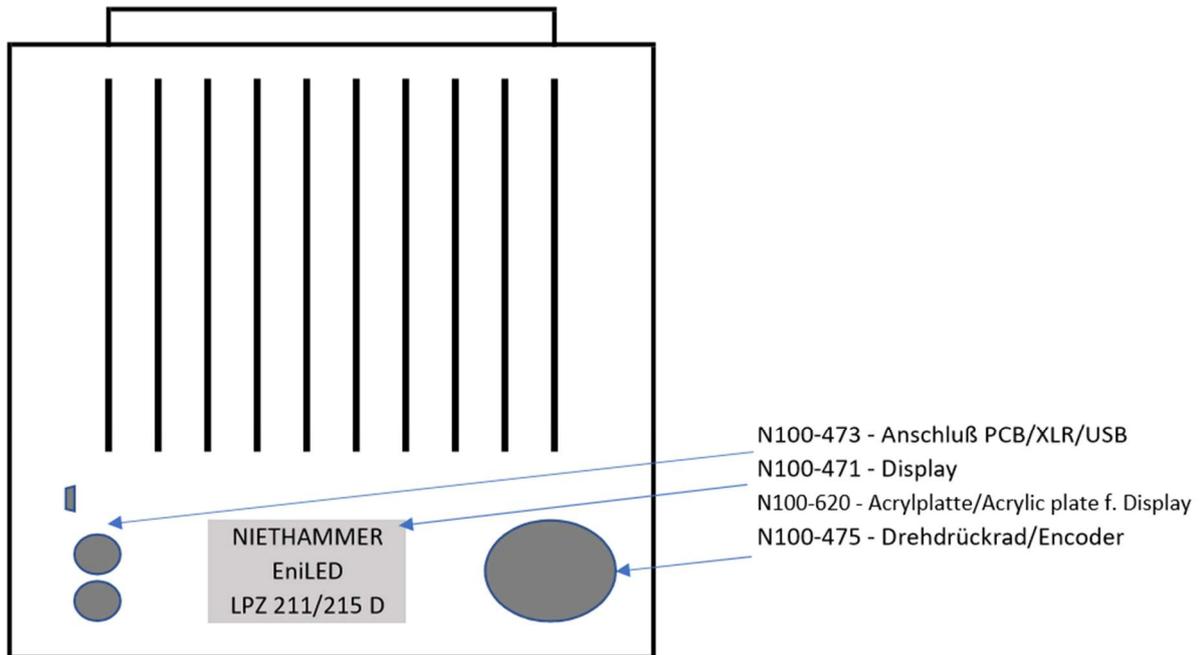
N200-010 (3000K) - N200-011 (5700K)





Lampenhaus (Rückseite)

Lamphouse back side



**Electrical datas:**

**PSU:**

Input: 80-264V AC, 47-63Hz

Powerconsumption: max. 550W

**Spotlight:**

Input: 96V / 48V DC

Powerconsumption: max. 550W

**Photobiological datas:**

ENILED with 3.000K LED:

Risk group 1

ENILED with 5.700K LED:

Risk group 2

