



# Instruction Manual

## HPZ 112 D

## HPZ 115 D

E112.115.201501



### 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.

### 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 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.

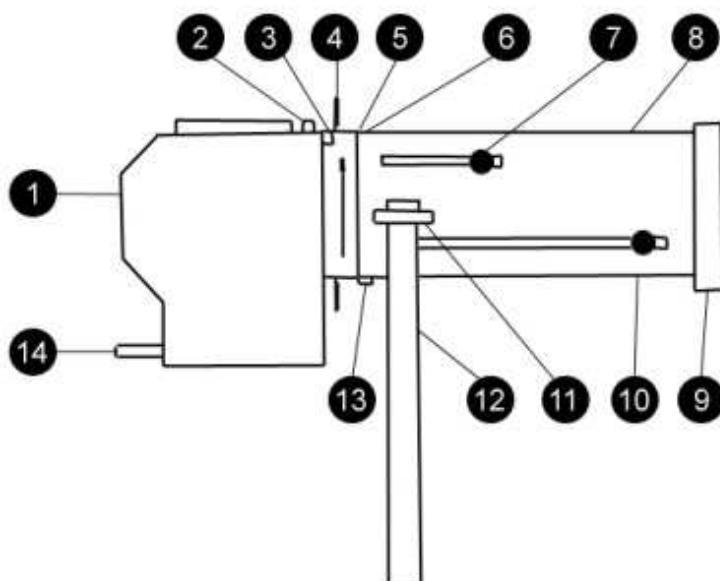
This luminaire is a piece of professional equipment designed for easy and simple use. Always refer to qualified personnel for any using, installation or repair work.

Avoid installing the luminaire near inflammable matters. Minimum distance between luminaire and inflammable matters is 1,9m.

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

1. Lamp Housing
2. Rear section Screw
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

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



### Electrical Connection and Fitting the lamp

1. This luminaire is designed for operating at a nominal voltage of 220 V - 240 V.
2. It is delivered with a cable HO7-RNF 3 x 1.5 qmm , 2,5 m length, equipped with a Schuko plug at the luminaire site.
3. This luminaire is set for use with a 1 kW lamp (LCL 55 mm) but it can be adapted to take a 1.2 kW lamp (LCL 67 mm). The maximum diameter for the lamp bulb is limited to 32mm. Do not use a lamp with a larger bulb.
4. The Lamp Housing can be opened simply by loosen the two screws.
5. Before opening the lamp Housing (1), you must losing the Rear Section Screw (2) und unplug the cable from voltage! In the Lamp House, you will find the lamp socket, the mirror and the condenser optic.

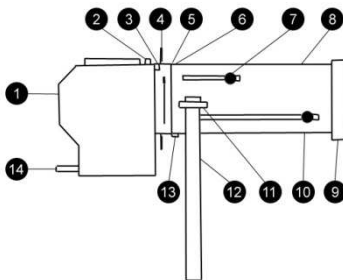
The luminaire has a GX9,5-Lamp socket and is for use with a 1000W or 1200W lamp. For using the 1000W lamp, you need to adjust the lamp 12mm higher in the luminaire to be in optical axis.

The different lamp types are marked on the fixed part of the lamp socket. The lower mark is for the 1200W lamp, the higher one for the 1000W lamp.

It is possible to modify the lamp holder, using the knurled screws:

- position, near the condenser is for 1000W Lamp
- position near the mirror is for 1200W

No more modifications are needed. All other parts are fixed in the lamp housing.



### Parts of 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 remove the small plastic bolt.

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.

### 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 +/- 30mm (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.

### 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, mirrors and lamp 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 mirror and 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. For the Iris, please don't use fat or oil.
3. 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.
4. Maintenance and Servicing are the guaranty for a long economic life time and an optimum in light output.

### First Time Use

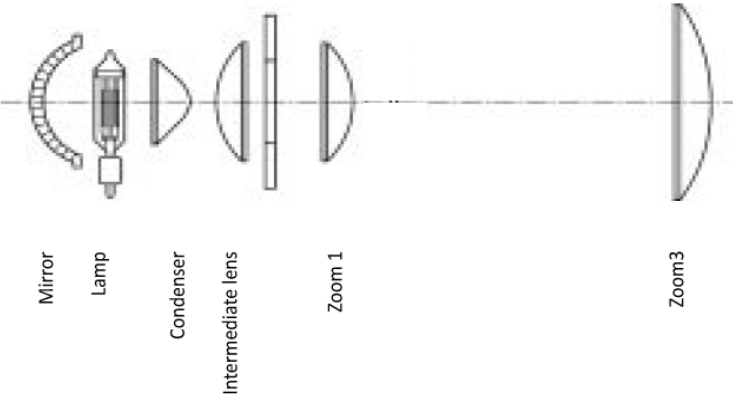
Using the luminaire the first time, do it in the following way:

- 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

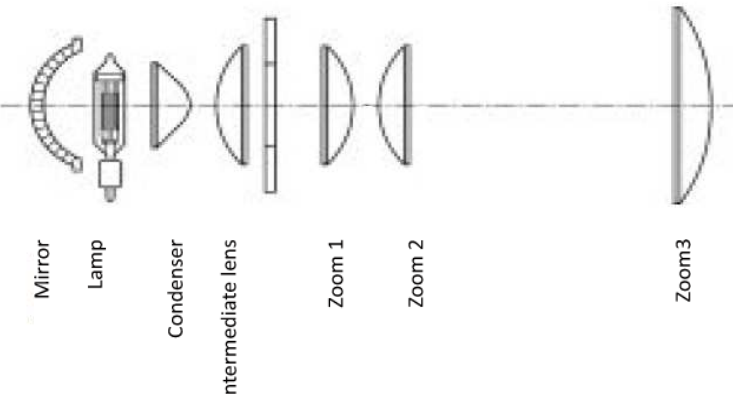


Optical System

HPZ 112 D



HPZ 115 D



# NIETHAMMER

## HPZ 112 D and HPZ 115 D



### HPZ 112 D

Photometric data									
1,200 W / 30,000 lm	Distance (m)	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5
min. opening angle: 12°   ax.= 375,000cd	ø Dia. Light circle (m)	2.1	2.6	3.2	3.7	4.2	4.7	5.3	5.8
	Luminous intensity (lx)	3,750	2,400	1,670	1,225	938	740	600	496
max. opening angle: 24°   ax.= 140,000cd	ø Dia. Light circle (m)	4.3	5.3	6.4	7.4	8.5	9.6	10.6	11.7
	Luminous intensity (lx)	1,400	896	622	457	350	277	224	185
1,000 W / 26,000 lm	Distance (m)	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5
min. opening angle: 12°   ax.= 295,000cd	ø Dia. Light circle (m)	2.1	2.6	3.2	3.7	4.2	4.7	5.3	5.8
	Luminous intensity (lx)	2,950	1,888	1,311	963	738	583	472	390
max. opening angle: 24°   ax.= 120,000cd	ø Dia. Light circle (m)	4.3	5.3	6.4	7.4	8.5	9.6	10.6	11.7
	Luminous intensity (lx)	1,200	768	533	392	300	237	192	159

### HPZ 115 D

Photometric data									
1,200 W / 30,000 lm	Distance (m)	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5
min. opening angle: 16°   ax.= 215,000cd	ø Dia. Light circle (m)	1.3	2.0	2.6	3.3	3.9	4.6	5.3	5.9
	Luminous intensity (lx)	8,600	3,800	2,150	1,376	955	700	537	425
max. opening angle: 38°   ax.= 54,000cd	ø Dia. Light circle (m)	3.4	5.2	6.9	8.6	10.3	12.1	13.8	15.5
	Luminous intensity (lx)	2,160	960	540	346	240	176	135	107
1,000 W / 26,000 lm	Distance (m)	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5
min. opening angle: 16°   ax.= 165,000cd	ø Dia. Light circle (m)	1.3	2.0	2.6	3.3	3.9	4.6	5.3	5.9
	Luminous intensity (lx)	6,600	2,930	1,650	1,056	733	540	413	326
max. opening angle: 38°   ax.= 46,000cd	ø Dia. Light circle (m)	3.4	5.2	6.9	8.6	10.3	12.1	13.8	15.5
	Luminous intensity (lx)	1,840	818	460	294	204	150	115	91



### Important Spareparts

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

#### Spareparts for HPZ 112D Standard

N 114-033	Alu-Reflector 68mm Diameter
N 16-164	Socket GX 9,5 EN 1,5mm
N 130-706	Aspherical Condenser lens 68mm Diameter
N 130-640	Intermediate lens 89mm Diameter
N 92-131	Iris Diaphragm 80mm Diameter
N 115-440	Beam Shaper Unit 175mm Diameter
N 130-643	Zoom In lens 114mm Diameter
N 130-645	Zoom Out lens 152mm Diameter
N 43-216	Rotary locking knob compl.
N 92-255	Colour filter cassette SG 180
N 58-710	Safety grid
N 130-744	Tilt Locking handle
N 70-459	Zoom-Focus-Knob
N 115-520 ET	Complete Mounting for aspherical condenser lens (3parts)
N 115-560 ET	Complete Mounting for Reflector (4 parts)
N 112-100	Cover lamphousing complete
N 70-326	Knurled knob Lamphousing
N 115-523 ET	Micanite ring for condenser lens 68mm Diameter
N 70-194	Handle

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N 114-033	Alu-Reflector 68mm Diameter
N 16-164	Socket GX 9,5 EN 1,5mm
N 130-706	Aspherical Condenser lens 68mm Diameter
N 130-640	Intermediate lens 89mm Diameter
N 92-131	Iris Diaphragm 80mm Diameter
N 115-440	Beam Shaper Unit 175mm Diameter
N 130-642	Zoom In lens 114mm Diameter
N 130-643	Zoom Mid lens 114mm Diameter
N 130-644	Zoom Out lens 152mm Diameter
N 43-216	Rotary locking knob compl.
N 92-255	Colour filter cassette SG 180
N 58-710	Safety grid
N 130-744	Tilt Locking handle
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