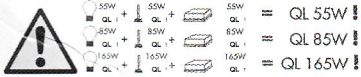
QL INDUCTION LIGHTING

GENERAL INFORMATION

QL COMPANY Proven Technology

1. Use only these three combinations



2. For detailed information

→ → QL Induction lighting systems, information for original equipment manufacturers
→ → QL Company
→ → info@qlcompany.com

QL Company offers a free of charge QL luminaire evaluation with recommendations for improvement. Please contact info@qlcompany.com for further details.

3. No mains during assembling

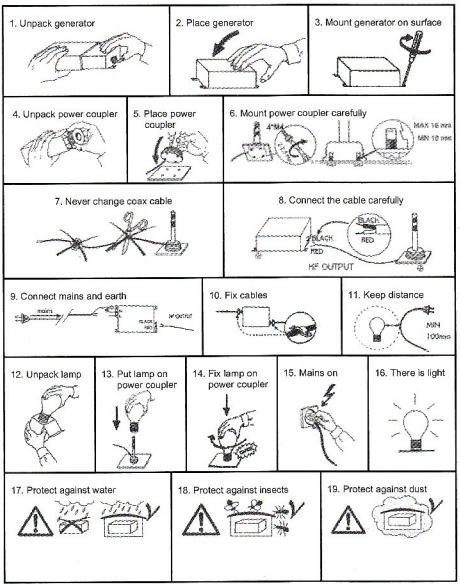
4. Protect eyes

5. Beware of high output voltage

6. General aspects

- The manufacturer accepts no liability for injury or damage resulting from incorrect use of the lamp in combination with inappropriate equipment
- This device complies with Part 18 of the FCC rules. This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45-30 MHz.
- Hg – LAMP CONTAINS MERCURY. Manage in Accord with Disposal Laws. See: www.lamprecycle.org
- QL 55W lamp contains less than 25nCi of Kr-85
  QL 85W lamp contains less than 60nCi of Kr-85
  QL 165W lamp contains less than 115nCi of Kr-85
- North America distribution by Arc Electronics, Inc. for: Nedap Light Controls

MOUNTING INSTRUCTIONS

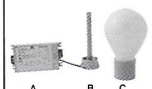


INSTRUCTIONS FOR QL LUMINAIRE DESIGNERS CONCERNING HEAT TRANSFER

Introduction

1. Components of a QL lamp system:

A: HF generator
B: power coupler
C: vessel

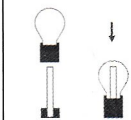


2. Assembling

The vessel is mounted on the power coupler.

The power coupler is connected to the HF generator.

The HF generator is connected to the mains (power supply).



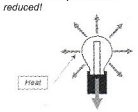
(For details: QL OEM guide, section 1.2.3)

3. When the lamp system is switched on, the vessel and the power coupler produce heat.

Note

*If the vessel becomes too hot, the **lumen output** of the lamp system will be reduced!*

*If the temperature of the power coupler exceeds a maximum, the **life** of the lamp system and the **lumen output** will be reduced!*

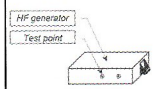


(For details: QL OEM guide, section 2.5.3)

4. When the lamp system is switched on, the HF generator produces heat.

Note

*If the temperature of the HF generator, mounted in a luminaire, exceeds a maximum temperature (72°C / 161°F), the **life** of the lamp system will be much shorter!*

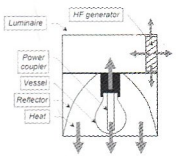


(For details: QL OEM guide, section 2.5.2)

5. To reduce the temperature of the vessel, the power coupler and the HF generator, the heat must be transported to the luminaire.

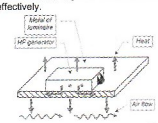
Important note!

The luminaire must transport the heat to the environment (to the air).

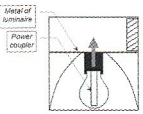


Recommendations for design

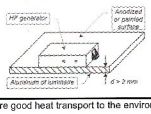
1. The HF generator and the metal of the luminaire must make contact very well in order to transport heat effectively.



2. For the same reason the power coupler and the metal of the luminaire must make contact very well.



3. Recommended for the material of the luminaire is aluminum:
- thickness > 2 mm
- anodized or painted



4. Because of the necessary air flow to transport heat, recommended for the shape of the luminaire is:
- as open as possible
- as big as possible

(For details: QL OEM guide, section 2.5.5.)

5. Ensure good heat transport to the environment.

6. Avoid heat flow from the power coupler and the vessel to the HF generator.

Test for luminaires on power consumption and temperature

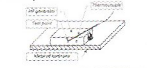
1. To test good **heat transfer** from the power coupler to the luminaire and to the environment, measure the power consumption of the QL lamp system:
- Switch on the lamp system.
- After 2 hours: measure the power consumption between the power supply and the power plug of the HF generator.

2. Limits for **power consumption**, 2 hours after switching on the lamp system (ambient temp. 20°C/68°F to 25°C/77°F).

HF generator	Limits
QL 55 W	50 - 55 W
QL 85 W	80 - 85 W
QL 165 W	155 - 165 W

In a well-designed luminaire the power consumption stays within the limits.

3. To test good **heat transfer** from the HF generator to the luminaire: measure the temperature on the test point of the HF generator.
- Switch on the lamp system.
- After 2 hours: measure the temperature on the test point of the HF generator with a thermocouple.



4. For all HF generators, the maximum recommended test point **temperature** is 72°C/161°F.

For the maximum **safety** temperature (t_c) on the test point, refer to the label on the HF generator.

(For details: QL OEM guide, section 2.5.2.)