85W Induction Systems

QL induction lighting is used for professional, general and special lighting applications because of its unmatched durability and high luminous efficacy with excellent light quality. QL offers a nearly maintenance free operation and superior energy saving. Induction lighting systems have an unique long performance life up to 100,000 hours because there is no use of electrodes in the induction system. In many cases the systems lifetime is determined at 60,000 hours, which equals approximately 15 years based on 4000 burning hours per year.

The major features of QL lamp systems, and their related benefits for the user, are:

Benefits

- Easy installation
- Good color rendering (Ra > 80) and choice of color temperature
- Useful light immediately after switch on
- Easy to use as retrofit or in new construction applications
- Economic, environment-friendly lighting in situations with long burning hours
- Lowest maintenance costs

Features

- Dimmable to 50%
- · Crisp white light with no color shift.
- Operates in hot and cold environments amalgam control.
- High lumen efficiency 85W QL features 12,000 initial lumens.
- Also available in 55 and 165 watts.

Application

Ideal for street lighting, bridges and tunnels, hazardous areas, cold storage warehouses and hard-to-reach applications.

Compliances and approvals

Safety

IEC 62532, IEC 61347-1, IEC 62471

Performance

IEC 62639 (in prep.), IEC 60929

- Quality standard ISO 9001
- Environmental management system ISO 14001
- Electromagnetic Compatibility EN 55015, EN 55022
- Vibration and (thermal)shocks IEC 60068



QL 85W Lamp

PRODUCT DATA

Product number

Full product name

Pieces/sleeve Sleeves per box Net weight

Light Technical Characteristics

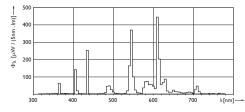
Chromaticity Coordinate X Chromaticity Coordinate Y RA Luminous Flux System Luminous Efficacy Luminance Average EL P.E.T.(NIOSH)

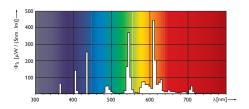
Damage Factor (Dfc)

| QL08500027 | QL08500030 | QL08500040 | QL08500050 |
|--------------------|--------------|---------------|--------------|
| QL Twist Base | QLTwist Base | QL Twist Base | QLTwist Base |
| 85W 827 | 85W 830 | 85W 840 | 85W 850 |
| 1 | | | |
| 6 | | | |
| 0.137 kg per piece | | | |

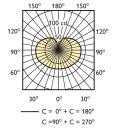
| 2700K | 3000K | 4000K | 5000K |
|------------|------------|------------|------------|
| 476 | 444 | 392 | 346 |
| 417 | 404 | 385 | 359 |
| >80 | >80 | >80 | >80 |
| 6100 lm | 6200 lm | 6200 lm | 6100 lm |
| 72 lm/W | 73 lm/W | 73 lm/W | 72 lm/W |
| 7.0 cd/cm2 | 7.5 cd/cm2 | 7.5 cd/cm2 | 7.0 cd/cm2 |
| >24h | >24h | >24h | >24h |
| <0.6 | <0.6 | <0.6 | <0.6 |

Spectral energy distribution

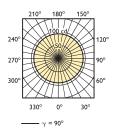




Typical Spectral energy distribution of QL 85W 3000K.



Typical light distribution of QL 85W



Typical light distribution of QL 85W, Azimuth angle



QL 85W Power coupler

PRODUCT DATA

Product number

Product description Pieces per box Net weight

Characteristics

Storage temperature
Operating temperature
Operating Position
Safety approvals
EMC approvals
Cable length
Connectors
Net Weight

| PC08500000 |
|--|
| QL Power Coupler 85W |
| 6 |
| 0.200 kg per piece |
| |
| |
| -40°C to +85°C |
| -40°C to +55°C _{ambient} |
| Universal |
| C-UL-US and CE |
| Complies with all international EMC requirements |
| 555 mm / 21.9 inch |
| |

N/A

0,200 kg per piece

For detailed information and guiding concerning the development of appropriate luminaire designs please visit our website www.qlcompany.com; "Information for Original Equipment" (OEM Guide).

Specifications subject to change without notice.





QL 85W Generator

PRODUCT DATA

Product number

Product description Pieces per box Net weight

Dimmable

Product number Product description Pieces per box Net weight

Features

General Characteristics

Lifetime system
Efficiency
Cooling
Tcase
Storage

Operating temp.
Operating position
Safety approvals
EMC approvals

Electrical Characteristics

Input line freq. Power Factor Current THD Output Voltage Switching freq. Current nom. Run-up/short Ignition Dimming

Product Dimensions

Dimensions (L x W x H) Connectors

| GE08523000 | GE08512000 |
|---------------------------------------|---------------------------|
| QL Generator 85W 200-277V | QL Generator 85W 100-120V |
| 6 | 6 |
| 0.580 kg per piece | 0.580 kg per piece |
| GE08523001 | GE08512001 |
| QL Generator 85W 200-277V | QL Generator 85W 100-120V |
| 6 | 6 |
| 0.580 kg per piece | 0.580 kg per piece |
| High Reliability | |
| Instant hot and cold (re)start | |
| Operates in hot and cold environments | 3 |
| Dimmable to 50% | |
| L 70 >70.000 hrs | |
| Power Factor Correction included | |
| Limited inrush current | |
| Output Power Stabilized | |
| Protections | |
| - Open/short output | |
| -Thermal | |
| - Lamp end of life | |
| Extended protection against mains fau | Its and deviations |
| | |
| 100.000 hrs at Tc=72°C | |
| > 90%, max. load | |

100.000 hrs at Tc=72°C

> 90%, max. load

convection, dependent on system set-up, heat sinking required

82°C max (72°C for full life)

-40°C to +85°C

-40°C to +55°C ambient

Universal

C-UL-US and CE

Complies with all international EMC requirements

45 - 66Hz

> 0.92

ANSI C82.11-2002

130 - 220 V_{ac}

2.67 MHz ± 8%

Depending on lamp

< 1.8 x I_{nom}

1.2 kVp

EN60929, 1-10 V_{dc} analog

50-100% output power

152 x 76 x 41 mm / 6.0 x 3.0 x 1.6 inch

Cage clamp terminals



QL 85W System

DIMENSIONAL DRAWING

Product dimensions Overall length C (Max) Length gear C3 (Norm) Diameter D (Max) Height gear H (Norm) Cable length X (Norm)

SYSTEM DATA

General Characteristics

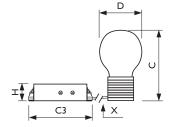
Operating Position Life System to 5% failures Life System to 10% failures Life System to 20% failures Life System to 50% failures

Electrical Characteristics

System Power
Watts
Operating Frequency
Ignition Time
Run-up time 70%
Re-ignition Time

Environmental Characteristics

180.5 mm / 7.11 inch 154 mm / 6.06 inch 111 mm / 4.37 inch 40.8 mm / 1.61 inch 555 mm / 21.85 inch



| Universal | | |
|------------|--|--|
| 40,000 hr | | |
| 60,000 hr | | |
| 80,000 hr | | |
| 100,000 hr | | |

| 85 W | | | |
|-----------|--|--|--|
| 85 W | | | |
| 2.650 MHz | | | |
| 0.5 sec | | | |
| 10 min | | | |
| 0.5 sec | | | |
| | | | |

Mercury (Hg) Content 5.0 mg