

QL 165W Induction Lighting System

**The most
sustainable
lighting
solution**

QL Induction Lighting 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 lamps have a unique long performance life up to 100,000 hours because there is no use of electrodes in the bulb. The lifetime of the system is determined at 80,000 hours, which equals approximately 20 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 ($R_a > 80$) 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 - 165W QL features 12,000 initial lumens.
- Also available in 55 and 85 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 61000, EN 55015, EN 55022
- **Vibration and (thermal)shocks**
IEC 60068

QL 165W Lamp



PRODUCT DATA

Product number

Full product name

Pieces/sleeve

Sleeves per box

Net weight

Cable length power coupler

Operating temperature

Safety approvals

QL16500130 QL16500140

QL Alu Base QL Alu Base

165W 830 165W 840

1

6

0.452 kg per piece

555 mm / 21.9 inch

-40°C to +55°C

C-UL-US and CE

Light Technical Characteristics

Chromaticity Coordinate X

Chromaticity Coordinate Y

RA

Luminous Flux System

Luminous Efficacy System

Luminous Efficacy Lamp

Luminance Average EL

PE.T.(NIOSH)

Damage Factor (Dfc)

3000K* 4000K

435 388

398 380

>80 >80

12000 lm 12000 lm

70 lm/W 70 lm/W

86 lm/W 86 lm/W

7.5 cd/cm2 7.5 cd/cm2

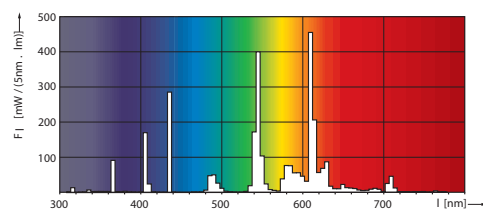
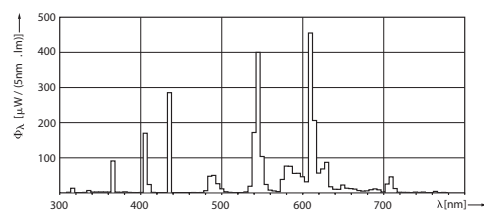
>24h >24h

<0.6 <0.6

* Other color temperatures available upon request.

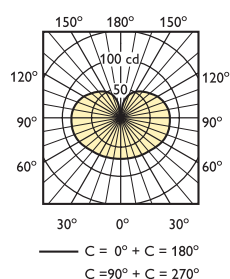
PHOTOMETRIC DATA

Spectral energy distribution

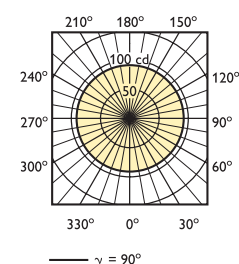


Typical Spectral energy distribution of QL 165W 3000K.

LIGHT DISTRIBUTION



Typical light distribution of QL 165W



Typical light distribution of QL 165W,
Azimuth angle

QL 165W Generator



PRODUCT DATA

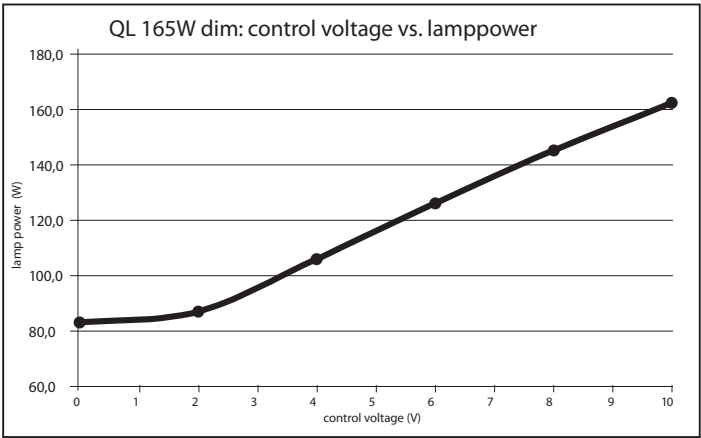
Product number
Product description
Pieces per box
Net weight
Dimensions (L x W x H)
Connectors

GE16523001	GE16512001
QL Generator 165W 200-277V	QL Generator 165W 100-120V
6	6
0.703 kg per piece	0.703 kg per piece
190 x 112 x 41 mm	190 x 112 x 41 mm
Cage clamp terminals	Cage clamp terminals

Features

High Reliability
Instant hot and cold (re) start
Operates in hot and cold environments
Dimmable to 50%
L 70 >70.000 hrs
Power Factor Correction and limited inrush current
Protection lamp end of life
Extended protection against mains faults and deviations

Dimming behavior



General Characteristics

Lifetime system
Efficiency
Cooling
Tcase
Storage
Operating temp.
Operating position
Safety approvals
EMC approvals

80.000 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

Electrical Characteristics

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

45 - 66Hz
> 0.98
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

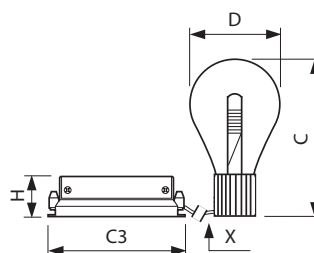
QL 165W System



DIMENSIONAL DRAWING

Product dimensions

Overall length C (Max)	208 mm / 8.19 inch
Length gear C3 (Norm)	190 mm
Diameter D (Max)	130 mm / 5.12 inch
Height gear H (Norm)	42.3 mm
Cable length X (Norm)	555 mm



SYSTEM DATA

General Characteristics

Operating Position	Universal
Life System to 5% failures	40,000 hr
Life System to 10% failures	60,000 hr
Life System to 20% failures	80,000 hr
Life System to 50% failures	100,000 hr

Electrical Characteristics

System Power	165 W
Operating Frequency	2.650 MHz
Ignition Time	0.5 sec
Run-up time 70%	10 min
Re-ignition Time	0.5 sec

Environmental Characteristics

Mercury (Hg) Content	8.0 mg
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