

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 (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 - 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

Light Technical

Characteristics

Chromaticity Coordinate X

Chromaticity Coordinate Y

RA

Luminous Flux System

Luminous Efficacy System

Luminous Efficacy Lamp

Luminance Average EL

P.E.T.(NIOSH)

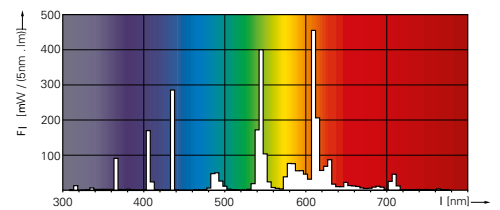
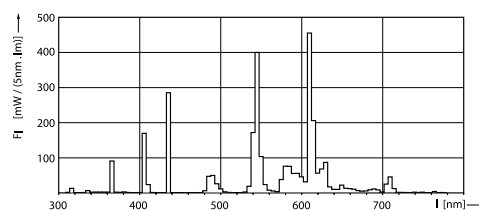
Damage Factor (Dfc)

QL16500027	QL16500030	QL16500040	QL16500050
QL Twist Base	QL Twist Base	QL Twist Base	QL Twist Base
165W 827	165W 830	165W 840	165W 850
1			
6			
0.195 kg per piece			

2700K	3000K	4000K	5000K
472	435	388	346
418	398	380	359
>80	>80	>80	>80
11000 lm	12000 lm	12000 lm	11000 lm
67 lm/W	70 lm/W	70 lm/W	67 lm/W
79 lm/W	86 lm/W	86 lm/W	79 lm/W
7.0 cd/cm ²	7.5 cd/cm ²	7.5 cd/cm ²	7.0 cd/cm ²
>24h	>24h	>24h	>24h
<0.6	<0.6	<0.6	<0.6

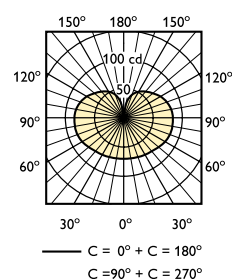
PHOTOMETRIC DATA

Spectral energy distribution

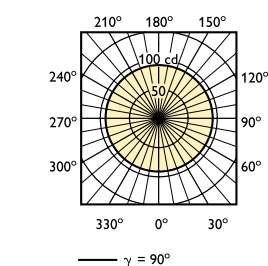


Typical Spectral energy distribution of QL 165W 3000K.

LIGHT DISTRIBUTION



Typical light distribution of QL 165W



Typical light distribution of QL 165W,
Azimuth angle

QL 165W Power coupler



PRODUCT DATA

Product number

Product description

Pieces per box

Net weight

PC16500000

QL Power Coupler 165W

6

0,277 kg per piece

Characteristics

Storage temperature

Operating temperature

Operating Position

Safety approvals

EMC approvals

Cable length

Connectors

Net Weight

-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

0,277 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 165W Generator



PRODUCT DATA

Product number

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

GE16523001

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

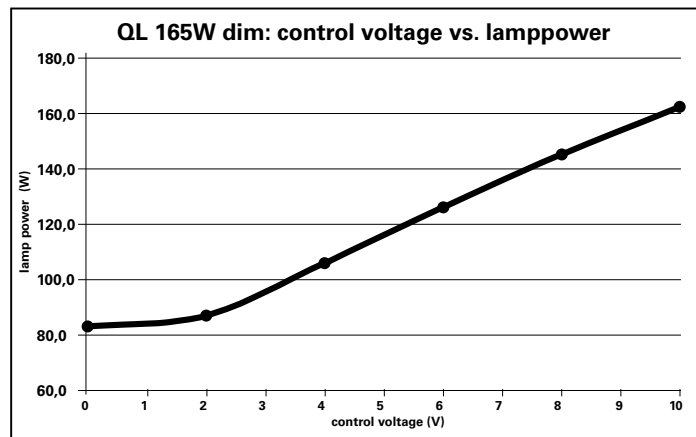
GE16512001

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

Features

High Reliability
 Instant hot and cold (re) start
 Operates in hot and cold environments
 Dimmable to 50%
 Can operate on both AC and DC power
 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
 T_{case}
 Storage
 Operating temp.
 Operating position
 Safety approvals
 EMC approvals

80.000 hrs at $T_c=72^\circ C$
 $> 90\%$, max. load
 convection, dependent on system set-up, heat sinking required
 $82^\circ C$ max ($72^\circ C$ for full life)
 $-40^\circ C$ to $+85^\circ C$
 $-40^\circ C$ to $+55^\circ C$ 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
 $130 - 220 V_{ac}$
 $2.67 MHz \pm 8\%$
 Depending on lamp
 $< 1.8 \times I_{nom}$
 $1.2 kVp$
 EN60929, 1-10 V_{dc} analog, 50-100% output power



QL 165W System

DIMENSIONAL DRAWING

Product dimensions

Overall length C (Max)

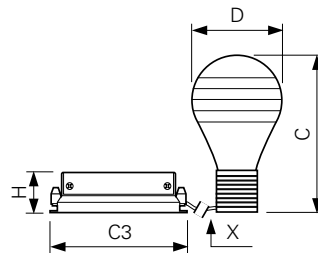
Length gear C3 (Norm)

Diameter D (Max)

Height gear H (Norm)

Cable length X (Norm)

205.5 mm / 8.09 inch
190 mm
131 mm / 5.12 inch
42.3 mm
555 mm



SYSTEM DATA

General Characteristics

Operating Position

Universal

Life System to 1% failures

40,000 hr

Life System to 3% failures

60,000 hr

Life System to 5% failures

80,000 hr

Life System to 10% 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 7.0 mg

North America distribution and sales:

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