

# Q-LED T8 lamps

2' | 4'

3000K | 5600K

120VAC | 240VAC

## Product Use & Safety Instruction Manual

Version 0.1

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## Dimensions

### Length

Q15W30 & Q15W56: 2' / 61cm pin tip to pin tip

Q30W30 & Q30W56: 4' / 122cm pin tip to pin tip

### Width

1" / 2.54 cm

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## Safety Information

### 1. Risk Levels & Alert Symbols

- a. **⚠ DANGER!** indicates an imminent hazardous situation which, if not avoided, will result in death or serious injury.
- b. **⚠ WARNING!** indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury.
- c. **⚠ CAUTION!** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- d. **NOTICE** explains practices not related to physical injury. No safety alert symbol appears with this signal word.

### 2. Vital Precautions

- a. **⚠ CAUTION!** Lamps must receive their rated power!
  - i. 120VAC rated lamps must receive 110V-120V of AC power
  - ii. 240VAC rated lamps must receive 220V-240V of AC power
- b. **NOTICE** Plugging 120VAC into 240VAC power will irreparably damage the lamp driver the electronics!

### 3. Warnings

- a. **⚠ CAUTION!** The lamp does not have IP rating and must be kept dry at all times.
- b. **NOTICE** Do not use VARIAC type dimmers.

### 4. General Precautions

- a. Make sure P1Z power connector is firmly secure flush to the lamp end before providing AC power.

## Introduction

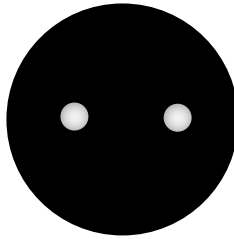
1. Product description
  - a. The Q15W and Q30W T8 Light Emitting Diode (LED) lamps are T8-sized LED bulbs containing a single strip of LEDs emitting either 3000K or 5600K directly phosphor converted 450nm LEDs.
  - b. The LEDs are diffused through a 180° diffuser to provide an even illumination surface at high enough frequencies to prevent flicker artifacts in photographic applications.
  - c. The LEDs are dimmed through the use of external TRIAC AC dimmers.
2. Packing List
  - a. 1x Q15W or Q30W T8-sized Lamp
  - b. 1x P1Z bi-pin power connector

## Overview

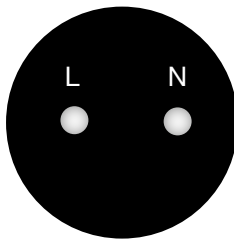
### 1. Device Diagram



- a. The device has two G13 compatible bi-pin ends.
  - i. The unlabeled end provides mounting purposes in existing fluorescent fixtures



- ii. The end labeled “L” and “N” is the AC power end. It receives the P1Z AC power connector.



### 2. P1Z AC Power Connector

- a. The P1Z AC power connector has:
  - i. Male end: 1x polarized 2-prong AC connector
  - ii. Female end: 1x QTP2 head bi-pin receiver with spring tension buttons



## Physical Installation & ⚠ Power Instructions

1. Fixture installation configurations and instructions
  - a. The T8 lamps have G13 bi-pin ends that can fit in any existing fluorescent light G13 bi-pin “tombstone” mounts.
  - b. The T8 lamps will fit any typical T8 clips as well as Quasar Science T8-sized Q-Block mounting blocks (QBK-T8)
  - c. Quasar Plates or any other device containing T8 clips or T8 Q-blocks can mount 2’ and 4’ T8 lamps.
  - d. To mount T8 lamps in these clips, simply insert the lamp into the clips until it is fully secure within the clip.
2. Power requirements
  - a. To install the P1Z AC connector:
    - i. Hold the power end with one hand.
    - ii. Pinch and hold the QTP2 spring tension buttons in with the other hand.
    - iii. Insert the G13 pins into the QTP2 holes and use the available thumb to push the QTP2 head flush to the power end cap.
    - iv. Release the QTP2 spring tension buttons.
  - b. ⚠ **CAUTION!** 120VAC rated lamps must receive 110V-120V of AC power
  - c. ⚠ **CAUTION!** 240VAC rated lamps must receive 220V-240V of AC power
  - d. DC power sources will not power the lamp.
  - e. Insufficiently powered AC dimming circuits may cause the lamp to flicker. To remedy this issue, plug in parallel electrical configuration a very low wattage incandescent light bulb to stabilize the TRIAC dimming circuit.

## Basic Features

1. Dimming
  - a. The Q-LED T8 lamps are capable of dimming down while maintaining color temperature.
  - b. The Q-LED T8 lamps are dimmed by an external TRIAC AC source.
  - c. To Dim Q-LED T8 lamps, plug the installed P1Z into:
    - i. AC power wired up to a wall-dimmer switch
    - ii. AC power wired up to a TRIAC dimmer source
    - iii. AC power connected to a stand-a-lone TRIAC dimmer plugged into AC-power
2. Dimming Equipment recommendations
  - f. The T8 lamps must be dimmed with TRIAC AC dimming circuits. VARIAC type dimmers will not work.
  - g. Reverse-phase (trailing edge) TRIAC AC dimming circuits will enable lower dim levels with less strobing.
  - h. CFL/LED TRIAC AC dimming circuits must have a circuit that enables stable low voltage operation.
  - i. The following dimmers work well with T8 products:
    - i. Lutron CF line of household dimmers
    - ii. ETC Sensor
    - iii. RatPac dimmer products





## Technical Specifications

1. Physical Length, Width Height
  - i. Q15W30, Q15W56, Q30W30, Q30W56: Width & height = 1" 2.54 cm
  - ii. Q15W30 & Q15W56: Length = 2' / 61 cm
  - iii. Q30W30 & Q30W56: Length = 4' / 122 cm
2. Diffusor Length, Width Height
  - i. Q15W30, Q15W56, Q30W30, Q30W56: Width = 1" 2.54 cm
  - ii. Q15W30, Q15W56, Q30W30, Q30W56: Height = 0.5" 1.27 cm
  - iii. Q15W30 & Q15W56 Length: ~22"
  - iv. Q30W30 & Q30W56 Length: ~46"
3. Illuminant technical data
  - i. Q15W30 & Q30W30: 3000K LED
    1. SSI[3000K]: 87
    2. CRI: 98
  - ii. Q15W56 & Q30W56: 5600K LED
    1. SSI[5600K]: 76
    2. CRI: 97
4. Photometric data

Model	Distance (ft / m)	3000K (FC / Lux)	5600K (FC / Lux)
Q15W	2 / 0.6	56 / 602	64 / 686
Q15W	3 / 0.9	26 / 283	30 / 323
Q15W	4 / 1.2	14 / 155	16 / 176
Q15W	6 / 1.8	6.4 / 69	7.3 / 78
Q15W	8 / 2.4	3.7 / 40	4.2 / 45
Q15W	10 / 3	2.4 / 25	2.7 / 29
Q15W	18 / 5.5	0.76 / 8.2	0.86 / 9.3
Q15W	25 / 7.6	0.39 / 4.2	0.45 / 4.8
Q30W	2 / 0.6	77 / 834	88 / 950
Q30W	3 / 0.9	39 / 421	45 / 479
Q30W	4 / 1.2	24 / 258	27 / 294
Q30W	6 / 1.8	<b>11 / 115</b>	<b>12 / 131</b>
Q30W	8 / 2.4	6.4 / 69	7.3 / 78
Q30W	10 / 3	4.1 / 44	4.7 / 50
Q30W	18 / 5.5	1.3 / 14	1.4 / 15
Q30W	25 / 7.6	0.72 / 7.8	0.82 / 8.8





# Quasar Science

## Warranty Information

1 Year warranty from date of purchase.  
Customer must provide proof of purchase.

This warranty is transferable.

**QUASAR SCIENCE WILL PAY FOR:**

The replacement parts, repair and/or labor costs to correct defects in materials and workmanship.

\*Service must be provided by Quasar Science or an Authorized Quasar Science Service Center\*

**QUASAR SCIENCE WILL NOT PAY FOR:**

Damage resulting from accident, misuse or abuse. Acts of God. Any failure that occurs for any other reason than materials and workmanship. Any shipping or handling costs.

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