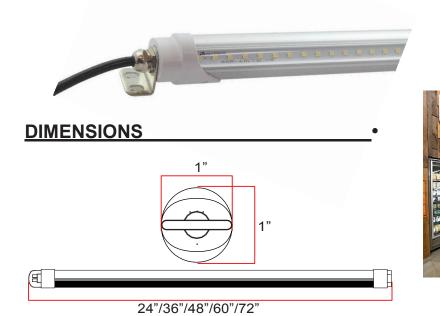
# REF-SERIES Refrigerator LED Tube



The LED Refrigeration Light can dramatically reduce energy usage up to 75% providing significantly lower operating costs. This light has been designed to offer high quality directional illumination.









## **FEATURES**

### • IP44 rated light module for use in commercial refrigerators and freezers.

- · Dramatically improves look for any food or merchandise being displayed
- Binned diodes for color uniformity
- Light diffuser contains no glass providing zero risk of glass breakage
- Minimize labor and recycling costs
- · Instant start in cold environments
- 5 Year Manufacturer's Warranty

## WARRANTY

## COMMON TECHNICAL DATA

Color Temperature	3000K-5000K Clear or Frosted Lens
Beam Angle	120°
CRI	>80
Operation Temperature	-20°C to 50°C / 0°F~122°F
Lumen Efficiency	More than 110LPW
Input Voltage	AC120-277V
Frequency	50-60Hz
Power Supply Efficiency	92%
Rated Life	50,000 hours
Power Factor	More than 0.90
LED Type	SMD2835
Housing	Aluminum/PC

This product has a warranty for a period of 5 years from the date of purchase. The warranty is invalid in the case of improper installation, tampering, or removal of the Q.C. date label. Installation in an improper working environment or installation not according to the current edition of the National Electric Code also invalidates the warranty. Should this product fail during the warranty period, it will be replaced free of charge, subject to correct installation and return of the faulty unit. James® does not accept responsibility for any installation costs associated with the replacement of this product. This warranty is in addition to the statutory rights in the country of purchase. James® reserves the right to alter specifications without prior notice.









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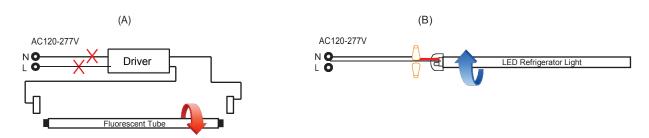
## PRODUCT SPECIFICATION

Product Number	Watt	Length (FT)	ССТ	Lumens	Input Voltage	Size (MM)
REF-8W600 BINS	8W	2FT	3000K-5000K	1120	AC100-277V/AC100-382V	26 x L 620 (Length Inc. cap)
REF-8W900 BINS	W8	3FT	3000K-5000K	930	AC100-277V/AC100-382V	26 x L 870 (Length Inc. cap)
REF-15W1200 BINS	15W	4FT	3000K-5000K	1700	AC100-277V/AC100-382V	26 x L 1140 (Length Inc. cap)
REF-18W1200 BINS	18W	4FT	3000K-5000K	2100	AC100-277V/AC100-382V	26 x L 1140 (Length Inc. cap)
REF-22W1200 BINS	22W	4FT	3000K-5000K	2420	AC100-277V/AC100-382V	26 x L 1140 (Length Inc. cap)
REF-20W1500 BINS	20W	5FT	3000K-5000K	2050	AC100-277V/AC100-382V	26 x L 1477 (Length Inc. cap)
REF-22W1500 BINS	22W	5FT	3000K-5000K	2880	AC100-277V/AC100-382V	26 x L 1477 (Length Inc. cap)
REF-22W1800 BINS	22W	6FT	3000K-5000K	3000	AC100-277V/AC100-382V	26 x L 1710 (Length Inc. cap)
REF-30W1800 BINS	30W	6FT	3000K-5000K	3930	AC100-277V/AC100-382V	26 x L 1710 (Length Inc. cap)

### INSTALLATION INSTRUCTIONS

### Retrofit Procedure:

- 1. Turn OFF power to the fixture at the breaker panel before installation.
- 2. Remove the fluorescent tubes (A) and dispose of these properly as they may contain mercury.
- 3. Cut the ballast and/or driver wires nearest to the connector and remove (A).
- 4. Use mounting holes to install LED tube into the lighting fixture and make AC connections using wire connectors (B).
- 5. Switch ON power to the fixture at the breaker panel



## CAUTION

- Risk of fire- do not install this lamp in a pre-heated luminaire.
- Risk of electric shock- make installation with gloves.
- Use only in place of fluorescent lamps specified on label.
- If the lamp or luminaire exhibits undesirable operation (i.e. buzzing, flickering, etc.), immediately turn off power and remove the lamp from luminaire and contact manufacturer.
- · If lamp does not light when the luminaire is energized, remove this lamp from luminaire and contact manufacturer.
- Do not make mass installation before sample testing.