



DESCRIPTION

Replacement for Conventional T12HO and T8HO Fluorescent Lamps for Sign Applications

APPLICATION

Used for Outdoor Signage (Single or Double Sided)

PRODUCT FEATURES

- Ideal for Both Single Sided and Double Sided Signs
- 50,000+ Hour Lifetime
- Installs using existing sockets in the sign; all necessary wiring can be done within ballast raceway
- 120-277V Input
- Optical Lens over individual LED's for optimal light spread within the sign
- Listed in the UL SAM Manual

- Effective 360° beam spread
- Rotatable End Caps
- Over 50% more Energy Efficiency than HO Fluorescent lamps
- Double Sided design provides even lighting in signs with no hot-spotting
- UL Classified: LED Sign Retrofit,
 Evaluated to UL 48 / UL 879A Standards
- No External Driver or Power Supply Needed
- Operating Temperature: -30°C/-22°F to 55°C/131°F

PERFORMANCE SPECIFICATIONS

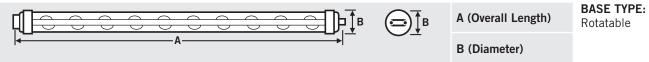
Catalog Number	Length	CRI	Wattage	Color Temp	Socket Type	Efficacy	Total Lumens	Lumens	
								Per Side	Per Ft.
KT-LED21T8-48P2S-840-D	4'	>80	21	4000K	R17d	119	2500	1250	312
KT-LED21T8-48P2S-865-D	4'	>80	21	6500K	R17d	124	2600	1300	325





PHYSICAL SPECIFICATIONS

LAMP DIMENSIONS



Overall Length

Nominal Length	Min	Max	Diameter
48"	45.72	45.91	1.1"

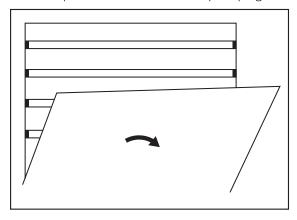
WIRING AND INSTALLATION

For New Sign Construction:

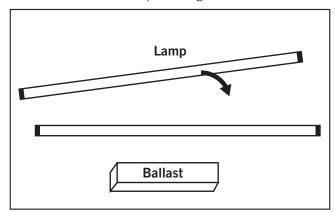
- 1. Run black wire (L) to all sockets on one side of sign and white wire (N) to all sockets on other end of sign.
- 2. Install LED lamps into sockets. Ensure the ends marked L and N correspond with the wiring of the sockets.
- 3. Rotate lamps to desired direction for application.
- 4. Ensure all black wires are joined together. Ensure all white wires are joined together. Should be accessible in raceway for easy field installation.

For Field Retrofit:

1. Ensure power is disconnected and open up sign.



2. Remove fluorescent lamps from sign.

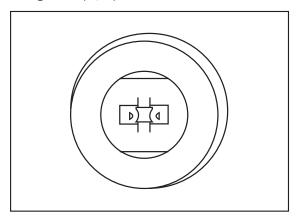




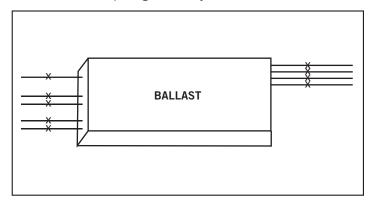


INSTRUCTIONS (Continued)

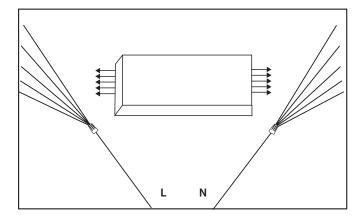
3. Inspect existing sockets to ensure they are in good shape, replace if needed.



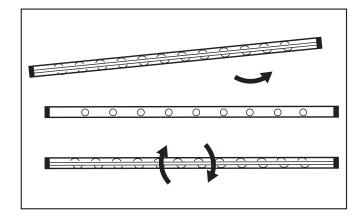
 Access sign raceway/wiring box, and cut all ballast input and output wires as shown. Do not remove ballast if removal leaves opening in raceway.



5. From mains, connect input (L) line to all wires coming from sockets on one side of sign and (N) neutral to all wires coming from the sockets on opposite end of the sign.



6. Insert Keystone Sign Hero LED tubes and rotate to desired position for optimal illumination. Ensure side marked "L" is connected to corresponding line socket and "N" is connected to corresponding neutral socket.

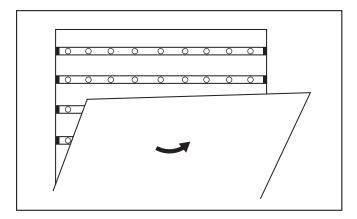






INSTRUCTIONS (Continued)

7. Place retrofit warning label on existing ballast (if applicable) or somewhere in sign. Ensure it is visible for all future maintenance. Close sign and apply power.



ACCESSORIES

Catalog Number	Description	
KTSP-10KV	External Surge Protector; Input Voltage 120-277V; Max. Peak Current: 10KV; IP65 Rated	

Accessories Sold Separately.

CATALOG NUMBER BREAKDOWN

