



SPECIFICATION SHEET

T8 Direct Install LED Lamp[†]

Operates with Compatible Ballast

Item Number **04049**

Specifications

Energy Used (Watts).....	33
Domestic Code	LED 33T8/96"/40 Direct Install
Volts	Ballast Dependant
Brightness (Lumens)	4400
Average Rated Hours.....	50,000
Life in Years (3 hrs./day)	45.6
Life in Years (12 hrs./day)	11.4
Light Appearance (Kelvin).....	4000
CRI	82
Efficacy (LPW).....	133
Number of LED Modules.....	168
Minimum Starting Temperature.....	-20°C/-4°F
Estimated Yearly Energy Cost*.....	\$3.97
Package Type	Sleeve
Non-shunted Tombstones Required.....	No

Can be used in totally enclosed fixtures.

Direct replacement for 96" single pin base linear fluorescent lamps.

Includes a lightweight P.E.T. coating which is shatter resistant and UV stabilized to prevent against yellowing.

[†] Dimmable when used with applicable ballast.

Physical Characteristics

Color Designation	Cool White
Finish.....	Frost
Base.....	Single Pin
MOL	96"

Warning

- Turn power off before inspection, installation, or removal.
- Risk of electric shock - Do not use where exposed to water or weather.
- Do not open - no user serviceable parts inside.
- This device is not intended for use with emergency exit luminaires or emergency exit lights.
- This device complies with Part 15 of the FCC rules and has been tested and found to comply with the limits for a Class B digital device. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

*Based on 3 hrs./day 11¢/kWh - Cost depends on rates and use.



8' LED Ballast Compatibility



Ballast Brand	Ballast Model #	Starting Method	# of Lamps Installed	Voltage	Status
ESPEN	VE259MVHIP	INSTANT START	1	120/277	Compatible
ESPEN	VE259MVHIP	INSTANT START	2	120/277	Compatible
ESPEN	VE275MVHIP	INSTANT START	1	108/120/277/305	Compatible
ESPEN	VE275MVHIP	INSTANT START	2	108/120/277/305	Compatible
GENERAL ELECTRIC	GE159-MAX-N/Ultra	INSTANT START	1	120/277	Compatible
GENERAL ELECTRIC	GE259MAX-G-N-DIYB	INSTANT START	1	120/277	Compatible
GENERAL ELECTRIC	GE259MAX-G-N-DIYB	INSTANT START	2	120/277	Compatible
GENERAL ELECTRIC	GE259MAX-L/ULTRA	INSTANT START	1	120/277	Compatible
GENERAL ELECTRIC	GE259MAX-L/ULTRA	INSTANT START	2	120/277	Compatible
GENERAL ELECTRIC	GE259MAX-N/ULTRA	INSTANT START	1	120/277	Compatible
GENERAL ELECTRIC	GE259MAX-N/ULTRA	INSTANT START	2	120/277	Compatible
GENERAL ELECTRIC	GE260ISMV-N-DIYB	INSTANT START	1	108/120/277/305	Compatible
GENERAL ELECTRIC	GE260ISMV-N-DIYB	INSTANT START	2	108/120/277/305	Compatible
GENERAL ELECTRIC	GE286-HO-MV-N	INSTANT START	1	120/277	Compatible
GENERAL ELECTRIC	GE286-HO-MV-N	INSTANT START	2	120/277	Compatible
GENERAL ELECTRIC	GE286MAX-HO-N	INSTANT START	1	120/277	Compatible
GENERAL ELECTRIC	GE286MAX-HO-N	INSTANT START	2	120/277	Compatible
KEystone	KTEB-2110-UV-TP-PIC	RAPID START	1	108/120/277/305	Compatible
KEystone	KTEB-2110-UV-TP-PIC	RAPID START	2	108/120/277/305	Compatible
KEystone	KTEB-259-1-IS-N	INSTANT START	1	120	Compatible
KEystone	KTEB-259-1-IS-N	INSTANT START	2	120	Compatible
KEystone	KTEB-259-UV-IS-N	INSTANT START	1	120/277	Compatible
KEystone	KTEB-259-UV-IS-N	INSTANT START	2	120/277	Compatible
KEystone	KTEB-275-UV-TP-PIC	INSTANT START	1	108/120/277/305	Compatible
KEystone	KTEB-275-UV-TP-PIC	INSTANT START	2	108/120/277/305	Compatible
KEystone	KTEB-275-UV-TP-PIC-SL	INSTANT START	1	108/120/277/305	Compatible
KEystone	KTEB-275-UV-TP-PIC-SL	INSTANT START	2	108/120/277/305	Compatible
KEystone	KTEB-286HO-UV-IS-N	INSTANT START	1	120/277	Compatible
KEystone	KTEB-286HO-UV-IS-N	INSTANT START	2	120/277	Compatible
KEystone	KTSB-E-0208-11-1-S	RAPID START	1	108/120/250	Compatible
KEystone	KTSB-E-0216-12-UV	INSTANT START	1	108/120/277/305	Compatible
KEystone	KTSB-E-0216-12-UV	INSTANT START	2	108/120/277/305	Compatible
KEystone	KTSB-E-0416-12-1-S	RAPID START	1	108/120/250	Compatible
KEystone	KTSB-E-0416-12-1-S	RAPID START	2	108/120/250	Compatible
KEystone	KTSB-E-0432-14-UV /A	INSTANT START	1	108/120/277/305	Compatible
KEystone	KTSB-E-0432-14-UV /A	INSTANT START	2	108/120/277/305	Compatible
KEystone	KTSB-E-0432-14-UV /A	INSTANT START	3	108/120/277/305	Compatible
KEystone	KTSB-E-0432-14-UV /A	INSTANT START	4	108/120/277/305	Compatible
KEystone	KTSB-E-0824-23-1-S	RAPID START	1	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0824-23-1-S	RAPID START	2	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0824-23-1-S	RAPID START	3	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0832-24-1-S	RAPID START	1	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0832-24-1-S	RAPID START	2	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0832-24-1-S	RAPID START	3	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0832-24-1-S	RAPID START	4	108/120/277/305	NOT Compatible
KEystone	KTSB-E-0848-46-UV /A	INSTANT START	1	108/120/277/305	Compatible



8' LED Ballast Compatibility



Ballast Brand	Ballast Model #	Starting Method	# of Lamps Installed	Voltage	Status
KEystone	KTSB-E-0848-46-UV /A	INSTANT START	2	108/120/277/305	Compatible
KEystone	KTSB-E-0848-46-UV /A	INSTANT START	3	108/120/277/305	Compatible
KEystone	KTSB-E-0848-46-UV /A	INSTANT START	4	108/120/277/305	Compatible
KEystone	KTSB-E-0848-46-UV /A	INSTANT START	5	108/120/277/305	Compatible
KEystone	KTSB-E-0848-46-UV /A	INSTANT START	6	108/120/277/305	Compatible
KEystone	KTSB-E-1040-14-UV	INSTANT START	1	108/120/277/305	Compatible
KEystone	KTSB-E-1040-14-UV	INSTANT START	2	108/120/277/305	Compatible
KEystone	KTSB-E-1040-14-UV	INSTANT START	3	108/120/277/305	Compatible
KEystone	KTSB-E-1040-14-UV	INSTANT START	4	108/120/277/305	Compatible
KEystone	KTSB-E-2448-46-1-S	RAPID START	1	108/120/277/305	NOT Compatible
KEystone	KTSB-E-2448-46-1-S	RAPID START	2	108/120/277/305	NOT Compatible
KEystone	KTSB-E-2448-46-1-S	RAPID START	3	108/120/277/305	NOT Compatible
KEystone	KTSB-E-2448-46-1-S	RAPID START	4	108/120/277/305	NOT Compatible
KEystone	KTSB-E-2448-46-1-S	RAPID START	5	108/120/277/305	NOT Compatible
KEystone	KTSB-E-2448-46-1-S	RAPID START	6	108/120/277/305	NOT Compatible
OSRAM SYLVANIA	QHE 2x59T8/UNV ISH	INSTANT START	1	120/277	Compatible
OSRAM SYLVANIA	QHE 2x59T8/UNV ISH	INSTANT START	2	120/277	Compatible
OSRAM SYLVANIA	QHE 2x59T8/UNV ISL-SC	INSTANT START	1	120/277	Compatible
OSRAM SYLVANIA	QHE 2x59T8/UNV ISL-SC	INSTANT START	2	120/277	Compatible
OSRAM SYLVANIA	QHE 2x59T8/UNV ISN-SC	INSTANT START	1	120/277	Compatible
OSRAM SYLVANIA	QHE 2x59T8/UNV ISN-SC	INSTANT START	2	120/277	Compatible
OSRAM SYLVANIA	QT 2x96/277 IS	INSTANT START	1	250/277/305	Compatible
OSRAM SYLVANIA	QT 2x96/277 IS	INSTANT START	2	250/277/305	Compatible
OSRAM SYLVANIA	QTP 2x59T8/UNV ISN-SC	INSTANT START	1	120/277	Compatible
OSRAM SYLVANIA	QTP 2x59T8/UNV ISN-SC	INSTANT START	2	120/277	Compatible
PHILIPS ADVANCE	ICN-2P60-N	INSTANT START	1	108/120/277/305	Compatible
PHILIPS-ADVANCE	ICN-2P60-N	INSTANT START	2	108/120/277/305	Compatible
PHILIPS-ADVANCE	IOP-2P59-N	INSTANT START	1	120/277	Compatible
PHILIPS-ADVANCE	IOP-2P59-N	INSTANT START	2	120/277	Compatible
ROBERTSON	ISL296T12MV	INSTANT START	1	108/120/277/305	Compatible
ROBERTSON	ISL296T12MV	INSTANT START	2	108/120/277/305	Compatible
UNIVERSAL LIGHTING TECHNOLOGIES	B259IUNVHP-A	INSTANT START	1	120/277	Compatible
UNIVERSAL LIGHTING TECHNOLOGIES	B259IUNVHP-A	INSTANT START	2	120/277	Compatible
UNIVERSAL LIGHTING TECHNOLOGIES	B260IUNVHP	INSTANT START	1	108/120/277/305	Compatible
UNIVERSAL LIGHTING TECHNOLOGIES	B260IUNVHP	INSTANT START	2	108/120/277/305	Compatible

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