Fluorescent Retrofit

# 4' Fluorescent Strip Channel Retrofit Kit



## **Applications**

Multiple configurations allow you to select a lamp type and number to meet your criteria, whether they be:

Improved Light Energy Savings

Utility Rebates
Improved reliability

Up to 38%

Energy Reduction
with same light!

Lamp Type	Existing Fixture 2x 40W T12 Base Case	2x 32W T8 Low Ballast Factor	2x 32W T8 Standard Ballast Factor	2x 32W T8 High Ballast Factor	
Watts	87	48	54	72	
Raw lamp lumens	5760	6200	6200	6200	
Ballast factor	92%	92% 77%		114%	
Effective Lamp Lumens (BF * raw lumens)	5300	4774	5394	7068	
Lumens per Watt	59	99	100	98	
Lumens relative to base case (%)	100%	90%	102%	148%	
Energy Savings	NA	45%	38%	17%	

Project:	
Catalog#:	
Approved by:	

### **Description**

FSR4 series fluorescent strip channel retrofit kit is a simple and cost-effective solution to upgrading existing 4' strip fixtures into newer and more efficient electronic T8 or T5 strips.

#### **Features**

#### Construction

- Designed for trouble free installation.
- Lampholder cutouts guarantee correct lampholder spacing and that lampholder will not fall out during install.
- Optional reflectors available
- Simple one piece construction
- Code gauge steel
- High gloss, baked enamel finish
- High quality lamp holders
- NEC compliant luminaire power disconnect standard
- Contents: 1 geartray with fully wired ballast and
- lampholders; 6 tek screws; 2 geartray tethers

#### **Ballast**

- Electronic, Inherent Thermal Protection, Class P, Sound rated A
- UL Listed

Fixture Listing: UL Listed

Quality Assurance

 System Tested, Designed, Approved, and Manufactured in Mendenhall, Mississippi.





# 4' Fluorescent Strip Channel Retrofit Kit

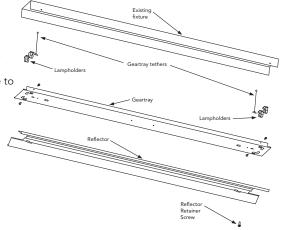
Project:	
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## **Ordering Information**

Model Family	Fixture Length	Width	No. of Lamps	Lamp Type/ Wattage <sup>(1)</sup>	Ballast	Input Volts	Factory Installed Options	Cordset Options	T B A	Pack.
FSR	4	4	2	32A	SE	MV	000	00	0	1
FSR	4: Four Foot	4: 4.25" 5: 5" O: Other (Specify Width)	1 2	28A:F28T5 54A: F54T5HO	SE: SBF High Eff <sup>(2)</sup> HE: HBF High Eff <sup>(2)</sup> LE: LBF High Eff <sup>(2)</sup> SI: SBF PS: PRS T5 P8: PRS T8 <sup>(2)</sup>	MV: 120-277v HV: 347-480v (T5HO) AX: 480-277 <sup>(3)</sup>	000: No FIOs	00: Standard Disconnect		I: Single

## **Installation in Seven Simple Steps**

- 1. Power off
- 2. Remove existing front cover, lampholders, and socket bars.
- 3. Screw geartray tethers into existing fixture to hang geartray.
- 4. Insert lampholders into labeled geartray cutouts.
- 5. Insert incoming power leads into ballast disconnect plug.
- 6. Close cover and screw it to fixture body.
- 7. Insert lamps.



- (1) Lamps not included. Please use "PS" Ballast Ordering Options for T5 lamp type.
- (2) High Efficiency ballasts are CEE Listed.
- (3) Step-down autotransformer. Allows hook-up of standard MV ballast to 480v.

#### Sample Ordering Number: FSR 4 4 2 32A SE MV 000 00 0 I

FSR4 Fluorescent Strip Retrofit Kit

4-foot 4.25" Wide Cover

2-lamps (none installed)

F32T8 Standard Ballast Factor High Efficiency Ballast

Multi-volt (120-277v)

No Factory Installed Options

No Cordset

Single Packaging

# RAPID SHIP MODEL AVAILABLE FOR NEXT DAY SHIPMENT

•FSR44232ASEMV000000I

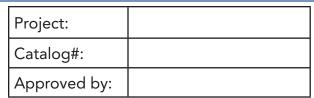


Specifications subject to change without notice.



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## Field Installed Options Ordering

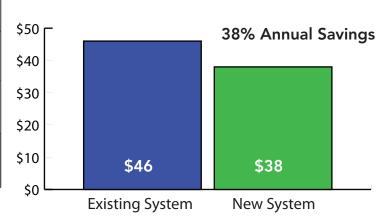




FSR4-E Enhanced Specular Aluminum Reflector (95% reflectance)
FSR4-A Specular Aluminum Reflector (86% reflectance)

FSR4-W White Aluminum Reflector (91% reflectance)

Energy Cost Estimator							
		Existing	System	New System			
		M2/40F	S-277	FSR44232ASI			
Hours burned per year	4368	Number of Fixtures	1	Number of Fixtures	1		
Cost per kWh\$	0.12	Watts per Fixture (existing system)	87	Watts per Fixture (new system)	54		
Energy	Cost	Energy used per year (existing system)	\$46	Energy used per year (new system)	\$28		
Estima		Energy sa year (per	ving per fixture)	\$17	.30		



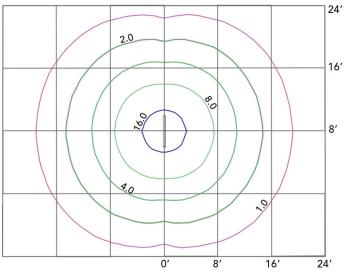
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# Photometric Data - 2 Lamp T8 (FSR44232)

## **Iso-Footcandle Plot**



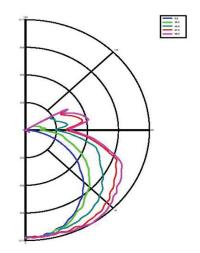
8' Mounting Height, 2-lamp Multi-volt ballast Lamps: Two 32w T8; no reflector

## **Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fix
0-30	893	14.0	16.0
0-40	1507	24.0	27.0
0-60	2959	48.0	53.0
0-90	4690	76.0	84.0
90-120	893	14.0	16.0
90-150	893	14.0	16.0
90-180	893	14.0	16.0
0-180	5583	90.0	100.0

# Project: Catalog#: Approved by:

# Candela Plot



# Coefficients of Utilization - Zonal Cavity Method

Effect	Effective Floor Cavity Reflectance 0.20														
RC		8	0			70			50			30			10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0
0	128	128	128	128	123	123	123	123	114	114	114	105	105	105	97
1	113	106	100	95	108	102	97	92	94	90	85	87	83	80	73
2	101	90	81	74	96	87	79	72	80	73	67	73	68	63	57
3	91	78	68	60	87	75	65	58	69	61	55	63	57	51	46
4	83	68	57	49	79	65	56	48	60	52	45	56	49	43	38
5	76	60	49	42	72	58	48	40	54	45	38	49	42	36	32
6	70	54	43	36	66	52	42	35	48	39	33	44	37	31	28
7	64	48	38	31	61	47	37	30	43	35	29	40	33	27	24
8	60	44	34	27	57	42	33	27	39	31	25	37	29	24	21
9	56	40	31	24	53	39	30	24	36	28	23	34	27	22	19
10	52	37	28	22	50	36	27	21	33	26	20	31	24	19	17

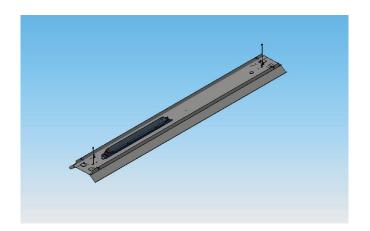
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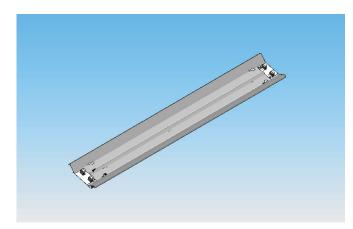
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**Retrofit Details** 

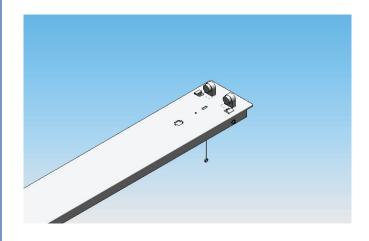
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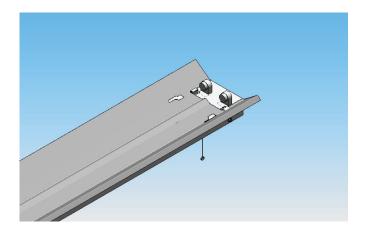
**Back View** 



Front View



No reflector



With Optional Reflector