Columbia



2' × 4' Shallow Specification Troffer / 4-Lamp T5, T5HO, T8

PROJECT INFORMATION

Heavy gauge steel. Die formed for extra rigidity.

standard ¹⁵/16" T-Bar ceilings. Integral T-Bar clips are

located at the end of the housing. Flanged housings

for hard ceilings feature overlap flange trim and

Energy efficient, thermally protected, automatic

Standard class "P," thermally protected,

compliant ballast disconnect is standard.

resetting, Class P, high power factor, sound rated A, magnetic or electronic ballasts. CEE NEMA Premium

autoresetting HPF ballast, sound rated A. CEE NEMA

Premium compliant. All ballast leads extend a

minimum of 6" through access location. NEC/CEC-

Grid housings are designed for installation in

Project Name

Catalog No.

HOUSING

wing hangers.

BALLASTS

compliant.

ELECTRICAL

FEATURES

- Optical performance designed for T8 and T5 lamp technology
- 2¹/₈" minimum spacing from bottom of lamp to bottom of
- IensMechanical light seal
- Mitered corners on door present a clean uninterrupted appearance
- Spring loaded latches optional
- Rolled fixture edges reduce risk of injury during fixture handling and installation
- Integral T-Bar clips quickly to secure fixture to grid system without the need for time-consuming loose parts
- Snap-in ballast covers can be removed with lamps installed
- Corner hinging for easy insertion and removal of door frame from either side
- Optional flush or regressed aluminum shielding frames available with positive action or spring loaded latches
- Housing ends secured by unique corner interlock and screws

FINISH

All parts pre-painted with high gloss baked white enamel, minimum reflectance 86%, applied over iron phosphate pretreatment for maximum adhesion and rust resistance.

Туре

Date

SHIELDING

100% clear prismatic acrylic, extruded and rollembossed, diagonally oriented female prisms, unless otherwise specified.

CERTIFICATION

EXAMPLE ST824-432G-FSA12-4EU-F0741-C388

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

ST8 24 _ NO. OF LAMPS VOLTAGE MODEL **CEILING TYPE** DOOR STYLE OPTIONS Shallow Inverted T-Bar Flush Steel U 120V-277V T8, 78+CRI, 3000K Lamps, ST8 4 Four G FS F830 Specification Furnished/Installed 6 Six F Overlap Flange FA Flush Aluminum 347 347V Troffer T8, 78+CRI, 3500K Lamps, F835 RA Regressed Aluminum Furnished/Installed PS Premium Steel F841 T8, 78+CRI, 4100K Lamps, Furnished/Installed GLR Fast Blow Fuse SIZE LAMP TYPE SHIELDING BALLAST EL Emergency Battery Pack 24 2'×4' 28 4', T5: 28 Watt A12 Pattern 12 Acrylic 0.100" Nominal (Std.) E Electronic T8, Instant Start PAF Paint After Fabrication **32** 4', T8: 32, 30, 28 **ELW** 2-Lamp Electronic T8, A12.125 Pattern 12 Acrylic 0.125" Nominal **SLL** Spring Loaded Latches 0.77 Ballast Factor, Low or 25 Watt A19 Pattern 19 Acrylic 0.15" Male Prism Wattage, Instant Start 54 4', T5HO: 54 or **C388** 3/8" Flex with 3 No. 18 Wires **PC1** Silver Parabolic Louver $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ 4E 4-Lamp Electronic T8, 51 Watt **C384** 3/8" Flex with 3 No. 14 Wires **PC2** Silver Parabolic Louver $1\frac{1}{2}$ " \times $1\frac{1}{2}$ " \times 1" Instant Start C488 3/8" Flex with 4 No. 18 Wires For complete list of lenses and louvers, see Options 4ELW 4-Lamp Electronic T8, C424 1/2" Flex with 4 No. 14 Wires and Accessories. 0.77 Ballast Factor, Low Wattage, Instant Start M4R Miro®-4 Aluminum Reflector FP Electronic T5 or T8, SAR Low Iridescent Specular Programmed Start Alum Reflector 4EP 4-Lamp Electronic **CP** Chicago Plenum T5HO (N/A 347V) or T8, For a complete set of options, see Programmed Start Options and Accessories.

For specific ballast vendor, show as option.

LENSED TROFFERS / ST824-4

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Columbia

PHOTOMETRIC DATA

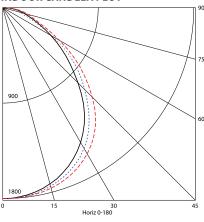
LUMINAIRE DATA

Luminaire	ST824-432G-FSA12-4E-PAF ST8 Lensed Troffer 2' × 4' 4-Lamp with A12 Lens
Ballast	B432I120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Total Input Watts	110
Shielding Angle	N/A
Spacing Criterion	0° = 1.22 90° = 1.30

Zone	Lumens	%Lamp	%Fixt.
0-30	3127	27.0	32.4
0-40	5071	43.7	52.5
0-60	8253	71.1	85.4
0-90	9663	83.3	100.0
0-180	9663	83.3	100.0

INDOOR CANDELA PLOT

0.0 —



45.0 90.0 -----

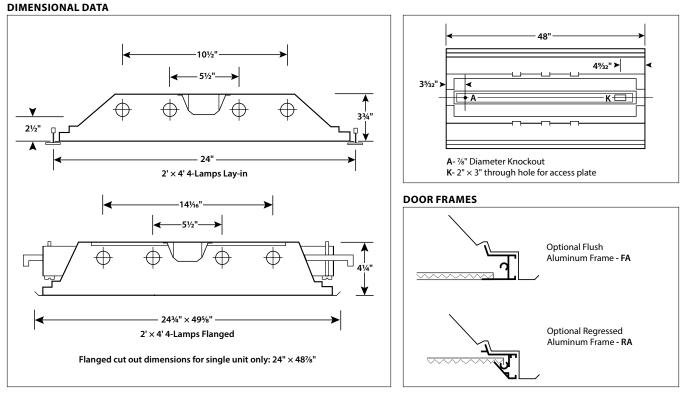
AVG. LUMINANCE (Candela/Sq. M.)								
		0.0	22.5	45.0	67.5	90.0		
	0	6124	6124	6124	6124	6124		
Jle	30	5815	5920	6095	6239	6276		
ľ n	40	5237	5360	5547	5767	5832		
eP	45	4761	4953	5176	5372	5379		
ŭ	50	4351	4502	4747	4867	4884		
Luminance Angle	55	3949	3979	4124	4221	4340		
E	60	3462	3348	3292	3459	3697		
	65	3018	2755	2481	2813	3168		
Average	70	2871	2465	2023	2515	2944		
erë	75	3025	2470	2231	2536	3049		
٩v	80	3104	2695	2561	2677	3246		
	85	3278	3012	2640	2924	3296		
				-				

COEFFICIENTS OF UTILIZATION (%)

	RC	80				70			50			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	0
	1	91	88	84	81	89	86	83	80	82	80	78	71
	2	84	77	72	68	82	76	71	67	73	69	66	61
	3	77	69	63	58	75	68	62	57	65	60	56	52
	4	71	62	55	49	69	60	54	49	58	53	48	46
RCR	5	66	55	48	43	64	55	48	43	53	47	42	40
ž	6	61	50	43	38	59	49	43	38	48	42	38	35
	7	56	46	39	34	55	45	38	34	44	38	34	31
	8	53	42	35	30	51	41	35	30	40	34	30	28
	9	49	39	32	27	48	38	32	27	37	31	27	26
	10	46	36	29	25	45	35	29	25	34	29	25	23

RCR = Room Cavity Ratio

 $\mathbf{RC} = \text{Effective Ceiling Cavity Reflectance } \mathbf{RW} = \text{Wall Reflectance}$



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

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ST824-4 2' × 4' Shallow Specification Troffer / 4-Lamp T5, T5HO, T8

Test 12582 Test Date 1/08/03

ENERGY DATA

Total Luminaire Efficiency	83.3%
Luminaire Efficacy Rating (LER)	77
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.12 based on 3000 hrs. and \$0.08 per KWH