

FEATURES

- Housing depth of only 1½" – no taller than standard T-bar
- Does not intrude into usable plenum space
- Unique telescoping housing minimizes installation depth and simplifies installation
- Employs T5 or T5HO technology for high efficiency and high performance
- Choice of four shielding options and three reflector forms provide a variety of contemporary aesthetics
- Multiple shielding options include injection molded baffle, perforated diffuser, or linear prismatic lens with high-transmission surface relief diffuser film
- Soft, uniform light distribution provides excellent vertical illumination free from harsh contrast
- Surface mount depth only 1⅞". Using an enclosing shell that combines with standard ZPT recessed fixtures, the surface mount housing can be ordered with the fixture or separately

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing and end caps are die formed code gauge cold rolled steel. Rotating locking lampholders standard. Flush Curved Baffle (FCB) shielding option features injection molded, opal translucent, impact-resistant acrylic material. Acrylic lens option (LSR) features linear prisms sculpted into the surface for a distinct ribbed texture. Perforated metal basket (PRF) and solid basket (SB) options formed from steel and painted gloss white.

FINISH

White painted parts are treated with a five stage phosphate bonding process and finished after fabrication with a minimum 90% reflective gloss baked enamel.

CEILING COMPATIBILITY

Luminaire is available to fit most standard ceiling types. NEC-compliant T-bar clips supplied with all grid trim fixtures. See ceiling details on reverse. For hard ceilings order G trim and FK flange accessory. Assemble then support FK accessory at ceiling plane using tie wires (by others). Contact your Columbia representative for compatibility information for specific ceiling types. For Surface Mount order SM trim option or G trim with accessory surface mounting kit. Finished depth of surface mounted fixture is 1⅞". Wiring access for surface fixtures from back of fixture only. Not suitable for end-to-end mounting.

INSTALLATION

Unique telescoping housing is 1½" deep allowing installation in extremely shallow plenums. Housing is formed in two interlocking sections compressed narrower than the T-bar opening to simplify handling and reduce the depth required for installation to 3" required at one end of the fixture only. Once the fixture is in place in the T-bar opening the installer slides the two portions to full width. Tabbed design automatically locks the fixture to full width. An access plate is furnished with each luminaire for fast wiring access. No need to open fixture.

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

CERTIFICATION

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.

PATENTS

This fixture is covered under one or more of the following patents: 7,234,832 B2, 7,390,111 B2, and 7,413,323 B2.

ORDERING INFORMATION

EXAMPLE ZPT24-228G-LSRR-EPU-EL

| | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|--|
| ZPT 24 - 2 | | | | | | | | | |
| MODEL ZPT Zero Plenum® Troffer | NO. OF LAMPS 2 Two | CEILING TYPE G Grid SM Surface Mount | | REFLECTOR O Open (N/A with PRF) S Smooth Curve R Ribbed Curve | | VOLTAGE U 120V-277V 347 347V | | OPTIONS F5830 30K 85CRI T5 or T5HO Lamps Installed F5835 35K 85CRI T5 or T5HO Lamps Installed F5841 41K 85CRI T5 or T5HO Lamps Installed GLR Fast Blow Fuse GMF Slow Blow Fuse ELS Emergency Battery Pack (Low profile only) C38890 3-Wire Flex, 90° Connector C48890 4-Wire Flex, (Step Dimming), 90° Connector 4TB (4) Bulk T-bar Clips MS9 Master/Satellite Pair with 9' Harness NYC NYC Compliant NYCU NYC Compliant, Union Label | |
| SIZE 24 2' x 4' | LAMP TYPE 28 4', T5: 28 Watt 54 4', T5HO: 54 or 51 Watt | SHIELDING LSR Linear Prismatic Lens with Surface Relief Diffuser PRF Metal Perf with Overlay* FCB Flush Curved Baffle SB Solid Basket | | BALLAST EP Electronic T5, 1.00 Ballast Factor (28W or 54W) EP95 Electronic T5, 0.95 Ballast Factor, Programmed Start (N/A T5HO, 1-Lamp) ESD95 Electronic T5, 0.95 Ballast Factor, Step Dimming, Programmed Start (N/A T5HO, 1-Lamp) EP115 Electronic T5, 1.15 Ballast Factor, Programmed Start (N/A T5HO, 1-Lamp) ESD115 Electronic T5, 1.15 Ballast Factor, Step Dimming, Programmed Start (N/A T5HO, 1-Lamp) ESD80 Electronic T5HO, 0.80 Ballast Factor, Step Dimming, Programmed Start (2-Lamp 54W only) ED Electronic T5, 1.00 Ballast Factor, Variable Dimming Ballast (28W or 54W) 11EP (2) 1-Lamp Electronic T5 or T5HO, 1.00 Ballast Factor (28W or 54W), No EL Available | | | | | |
| ACCESSORIES (ORDER SEPARATELY) ZPTSMK24 ZPT Surface Mounting Kit (2' x 4') FK24 2' x 4' Flange Kit | | *Installation requires 3½" between ceiling plane and plenum obstructions. | | | | | | | |

*ZPT may be ordered as a factory assembled surface mounted unit, or ordered as a grid "G" ceiling type and surface mounted in the field using the ZPTSMK surface mounting kit.

Note: Step dimming ballasts use two hot leads for 100% (both on) or 50% (one on) power.

For ED Electronic Dimming specify voltage and vendor's series.

For a specific ballast vendor show as option.

PHOTOMETRIC DATA

Test 14584 Test Date 7/14/05

LUMINAIRE DATA

| | |
|-----------------------------|---|
| Luminaire | ZPT24-228G-LSRR-EP ZPT Lensed Troffer 2' x 4' 2-Lamp with Linear Prismatic Lens, Opal Overlay, and Ribbed Reflector |
| Ballast | IOP-2S28-SC |
| Ballast Factor | 0.95 |
| Lamp | F28T5 |
| Lumens per Lamp | 2770 |
| Watts | 60 |
| Mounting | Recessed |
| Shielding Angle | 0° = 90 90° = 90 |
| Spacing Criterion | 0° = 1.17 90° = 1.21 |
| Luminous Opening in Feet | Length: 3.92 Width: 1.92 Height: 0.00 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | % Lamp | % Fixt. |
|-------|--------|--------|---------|
| 0-30 | 1281 | 23.1 | 27.0 |
| 0-40 | 2065 | 37.3 | 43.6 |
| 0-60 | 3563 | 64.3 | 75.2 |
| 0-90 | 4740 | 85.6 | 100.0 |
| 0-180 | 4740 | 85.6 | 100.0 |

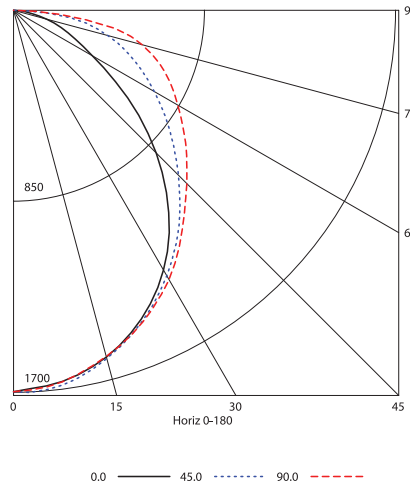
ENERGY DATA

| | |
|--|--|
| Total Luminaire Efficiency | 85.6% |
| Luminaire Efficacy Rating (LER) | 75 |
| ANSI/IESNA RP-1-2004 Compliance | Noncompliant |
| Comparative Yearly Lighting Energy Cost per 1000 Lumens | \$3.20 based on 3000 hrs. and \$0.08 per KWH |

COEFFICIENTS OF UTILIZATION (%)

| RCR | RC | 80 | | | 70 | | | 50 | | | 0 | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 |
| 1 | 92 | 88 | 84 | 80 | 90 | 86 | 82 | 79 | 82 | 79 | 76 | 70 |
| 2 | 84 | 76 | 70 | 65 | 81 | 74 | 69 | 64 | 71 | 67 | 62 | 58 |
| 3 | 76 | 67 | 59 | 54 | 74 | 65 | 59 | 53 | 63 | 57 | 52 | 48 |
| 4 | 70 | 59 | 51 | 45 | 68 | 58 | 51 | 45 | 56 | 49 | 44 | 41 |
| 5 | 64 | 53 | 45 | 39 | 62 | 52 | 44 | 39 | 50 | 43 | 38 | 36 |
| 6 | 59 | 48 | 40 | 34 | 57 | 47 | 39 | 34 | 45 | 39 | 34 | 31 |
| 7 | 55 | 43 | 35 | 30 | 53 | 42 | 35 | 30 | 41 | 35 | 30 | 28 |
| 8 | 51 | 39 | 32 | 27 | 50 | 39 | 32 | 27 | 38 | 31 | 27 | 25 |
| 9 | 48 | 36 | 29 | 24 | 47 | 36 | 29 | 24 | 35 | 28 | 24 | 22 |
| 10 | 45 | 33 | 27 | 22 | 44 | 33 | 26 | 22 | 32 | 26 | 22 | 20 |

INDOOR CANDELA PLOT



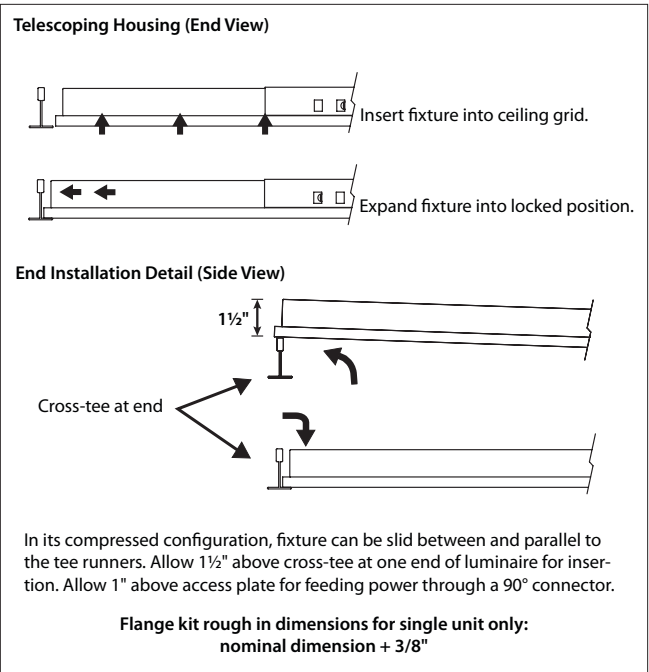
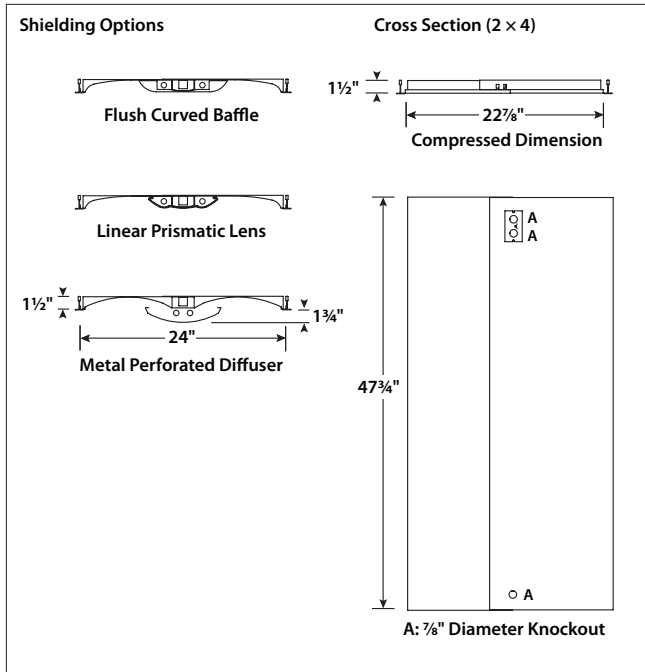
AVG. LUMINANCE (Candela/Sq. M.)

| Average Luminance Angle | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|-------------------------|------|------|------|------|------|
| 0 | 2427 | 2427 | 2427 | 2427 | 2427 |
| 30 | 2203 | 2211 | 2251 | 2281 | 2284 |
| 40 | 1975 | 2054 | 2149 | 2190 | 2207 |
| 45 | 1814 | 1958 | 2097 | 2170 | 2205 |
| 50 | 1618 | 1869 | 2065 | 2183 | 2236 |
| 55 | 1381 | 1798 | 2055 | 2224 | 2299 |
| 60 | 1161 | 1736 | 2068 | 2305 | 2411 |
| 65 | 1025 | 1672 | 2122 | 2464 | 2609 |
| 70 | 941 | 1593 | 2229 | 2689 | 2885 |
| 75 | 845 | 1509 | 2398 | 3028 | 3271 |
| 80 | 692 | 1450 | 2693 | 3509 | 3747 |
| 85 | 476 | 1543 | 2642 | 3200 | 3397 |

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

DIMENSIONAL DATA



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