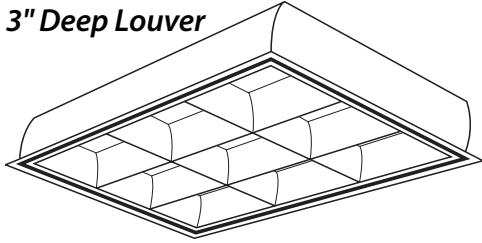


3" Deep Louver



Also available with 3 lamps and 16 cells

FEATURES

- 3" deep cell parabolic louver for optimum control
- IES standard RP-1 glare control models available
- Wide light distribution provides uniform illumination
- Black reveal with full air handling capabilities
- Anodized low iridescent aluminum louver
- Treated with a five stage phosphate bonding process and finished with a baked white enamel
- Mechanical light trap prevents light leaks
- Surface mount available

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing and end caps are die formed code gauge cold rolled steel. Louver is formed from low iridescent anodized aluminum and is secured by die-formed spring steel hinges. Louver hinges from either side. Mechanical light trap prevents light leaks. Latches are finger-tip actuated, positive feed type and completely concealed in the black reveal.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, magnetic or electronic ballasts. CEE NEMA Premium compliant.

FINISH

Painted parts are treated with a five stage phosphate bonding process and finished with a high temperature baked white enamel. Louvers are low iridescent semi-specular (diffuse) natural anodized (LD) aluminum as standard.

ELECTRICAL

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

CEILING COMPATIBILITY

Luminaire is available to fit most standard ceiling types. NEC-compliant tee-bar clips supplied with all grid trim fixtures. See ceiling details on reverse. Contact your Columbia representative for compatibility information for specific ceiling types.

AIR HANDLING

All supply/return and air extract functions are shown on the specification sheet and are available as a specified option. Specify air handling requirement by including function number as part of complete catalog number. Directional control vanes and/or extract dampers must be specified. Air extract slots are located out of sight in end caps. See air removal data on specification sheet.

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.

INSTALLATION

For fast wiring connections without the necessity of opening fixture or wireway, a flex connector adapter plate is furnished with each luminaire. A plastic dust cover which eliminates construction dust and protects the lamps is provided as standard.

ORDERING INFORMATION

EXAMPLE P422-217G-LD33-S-EU

| | | | | | | | |
|------------------------------------|---|--|---|-----------------------------|---|--|----------|
| P4 | 22 | - | 2 | - | - | - | - |
| MODEL | NO. OF LAMPS | CEILING TYPE | NO. CELLS CROSSWISE | NO. CELLS LENGTHWISE | BALLAST | OPTIONS¹ | |
| P4 Recessed Air Handling Parabolic | 2 Two | G Grid F Overlap Flange M Modular Fit-in Trim SG Slot Grid SM Surface Mount (Static only) | 3 Three 4 Four | 3 Three 4 Four | E Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start EPTT Electronic Twin Tube, Programmed Start (40TT) <small>For a specific ballast vendor, show as option.</small> | GLR Fast Blow Fuse GMF Slow Blow Fuse EL Emergency Battery Pack C388 3-Wire Flex C488 4-Wire Flex MS9 Master/Satellite w/9' Harness NYC NYC Compliant NYCU NYC Compliant, Union Label | |
| SIZE | LAMP TYPE | LOUVER FINISH | AIR FUNCTIONS | | VOLTAGE | | |
| 22 2' x 2' | 31U1 U-Bent, 15/8" Leg Spacing T8: 31 Watt 17 2', T8: 17 Watt 32U6 U-Bent, 6" Leg Spacing T8: 32 Watt 40TT Twin Tube Compact, 2G11 Base: 40 Watt | LD Low Iridescent Semi-Specular (Std.) LS Low Iridescent Specular MA Matte Anodized Low Iridescent Semi-Specular Aluminum GW Gloss White Enamel | S Static A Air Handling AV Air Handling w/Supply Vanes C Combination Supply/Extract CV Combination Supply Vanes/Extract CD Combination Supply Extract Dampers CVD Combination Supply Vanes Extract Dampers H Heat Extract HD Heat Extract w/Dampers | | U 120V-277V 347 347V | | |

¹ EL or other options may increase fixture depth.



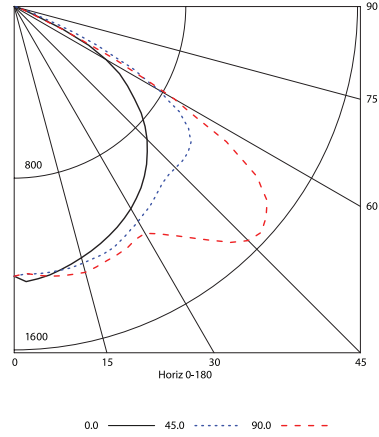
PHOTOMETRIC DATA

Test L11171 Test Date 1/8/03

LUMINAIRE DATA

| | |
|-------------------|--|
| Luminaire | P422-231U1G-LD33-E-PAF P4 Parabolic 2 x 2 2-Lamp T8U with White Interior and 3 x 3 Cell Semi-Specular Louver |
| Ballast | SSB2-120-2/32IS LH |
| Ballast Factor | 0.88 |
| Lamp | FBO31/31K |
| Lumens per Lamp | 2800 |
| Watts | 55 |
| Shielding Angle | N/A |
| Spacing Criterion | 0° = 1.28 90° = 1.71 |

INDOOR CANDELA PLOT



ENERGY DATA

| | |
|---|--|
| Total Luminaire Efficiency | 68.7% |
| Luminaire Efficacy Rating (LER) | 62 |
| IESNA RP-1-1993 Compliance | Noncompliant |
| IESNA RP-1-2004 Compliance | Noncompliant |
| Comparative Yearly Lighting Energy Cost per 1000 Lumens | \$3.87 based on 3000 hrs. and \$0.08 per KWH |

AVG. LUMINANCE (Candela/Sq. M.)

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|----|------|------|------|------|------|
| 0 | 4315 | 4315 | 4315 | 4315 | 4315 |
| 30 | 4312 | 4479 | 4582 | 4685 | 4840 |
| 40 | 4301 | 4575 | 4817 | 5665 | 6373 |
| 45 | 4252 | 4529 | 5165 | 6516 | 7488 |
| 50 | 4126 | 4458 | 5650 | 7227 | 8183 |
| 55 | 3864 | 4277 | 5942 | 7236 | 8260 |
| 60 | 3395 | 3972 | 5367 | 5806 | 5923 |
| 65 | 2008 | 2780 | 3439 | 2634 | 1878 |
| 70 | 492 | 733 | 1045 | 563 | 512 |
| 75 | 252 | 305 | 305 | 332 | 319 |
| 80 | 119 | 158 | 178 | 198 | 198 |
| 85 | 0 | 39 | 79 | 118 | 79 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | % Lamp | % Fixt. |
|-------|--------|--------|---------|
| 0-30 | 1020 | 18.2 | 26.5 |
| 0-40 | 1737 | 31.0 | 45.1 |
| 0-60 | 3466 | 61.9 | 90.1 |
| 0-90 | 3849 | 68.7 | 100.0 |
| 0-180 | 3849 | 68.7 | 100.0 |

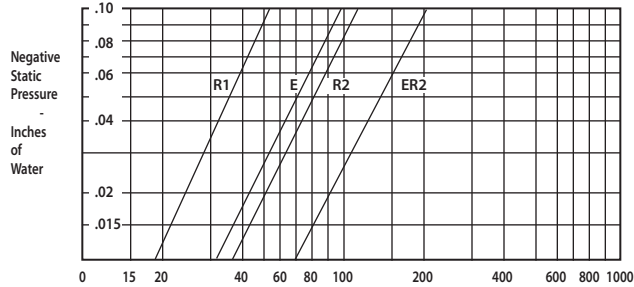
COEFFICIENTS OF UTILIZATION (%)

| RC | 80 | | | | 70 | | | | 50 | | | | 0 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 1 | 76 | 73 | 71 | 68 | 74 | 72 | 69 | 67 | 69 | 67 | 65 | 60 | |
| 2 | 70 | 64 | 60 | 57 | 68 | 63 | 59 | 56 | 61 | 58 | 55 | 51 | |
| 3 | 64 | 57 | 52 | 48 | 62 | 56 | 51 | 47 | 54 | 50 | 46 | 43 | |
| 4 | 58 | 50 | 45 | 40 | 57 | 49 | 44 | 40 | 48 | 43 | 39 | 37 | |
| 5 | 53 | 45 | 39 | 34 | 52 | 44 | 38 | 34 | 43 | 38 | 34 | 32 | |
| 6 | 49 | 40 | 34 | 30 | 48 | 39 | 34 | 30 | 38 | 33 | 29 | 28 | |
| 7 | 45 | 36 | 30 | 26 | 44 | 36 | 30 | 26 | 35 | 30 | 26 | 24 | |
| 8 | 42 | 33 | 27 | 23 | 41 | 32 | 27 | 23 | 31 | 26 | 23 | 21 | |
| 9 | 39 | 30 | 24 | 21 | 38 | 30 | 24 | 21 | 29 | 24 | 20 | 19 | |
| 10 | 37 | 28 | 22 | 19 | 36 | 27 | 22 | 18 | 27 | 22 | 18 | 17 | |

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

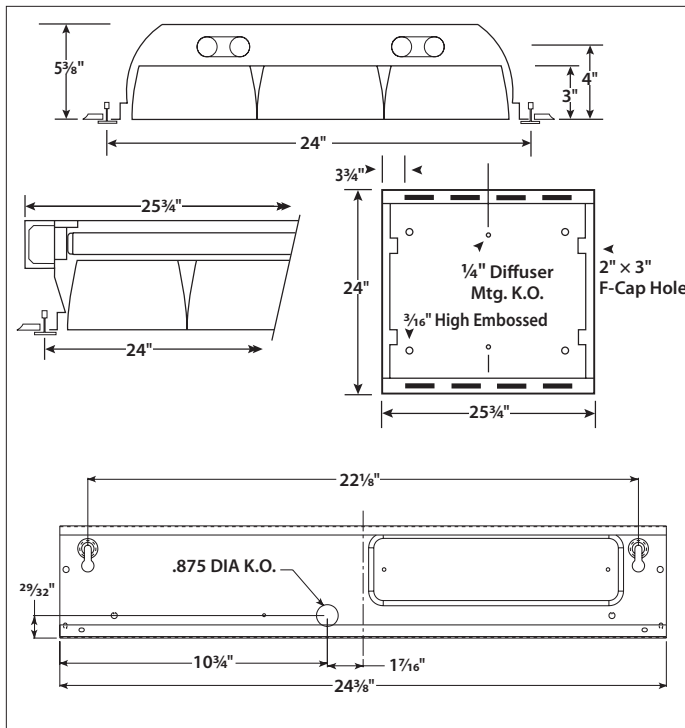
EXTRACT AIR DATA Report AL-526-1.1



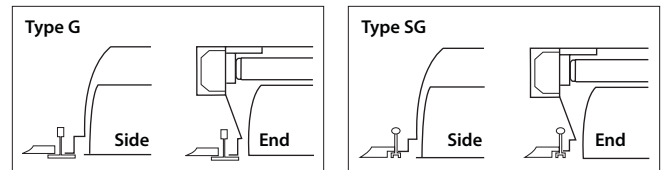
R1 - Air Return thru One Side Passage
R2 - Air Return thru Two Side Passages

E - Heat Extract thru Lamp Compartment
ER2 - Thru Both Sides and Lamp Compartment

DIMENSIONAL DATA

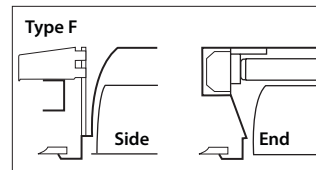


CEILING COMPATIBILITY



Type G
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 1 1/2" allowed.

Type SG
For 5/8" slot grid type ceilings. Louver will be level with the ceiling plane. Shoulder heights of tee or exact slot grid must be specified.



Type F
For tile, plaster or plasterboard type ceilings. Overlapping extruded aluminum trim conceals edges of ceiling opening. Wing hanger suspension system included. For row mounting, row information is required.

Type M
For metal pan ceilings "Fit-in" style extruded trim aligns with modular tile joints. Fixture is supported with concealed suspension and includes all adjustable wing hangers.

Flange kit rough in dimensions for single unit only: 24 3/8" x 24 3/8"

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