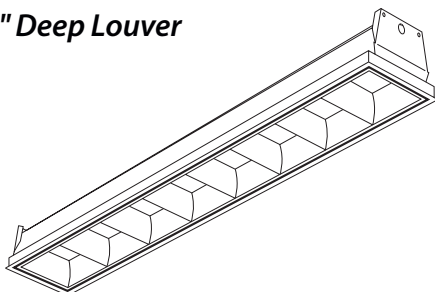


3" Deep Louver



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 constructed of die formed code gauge CR steel. Anodized aluminum louver is secured in open or closed position by die formed steel hinges. Louver hinges from either side. A mechanical light trap prevents light leaks. Latches are finger-tip actuated, profit feed type, fabricated of spring steel and completely concealed in the black reveal.

BALLAST

Energy efficient, thermally protected automatic resetting, Class P, high inrush factor, sound rated A, magnetic or electronic ballast. ENEC NEMA Premium compliant.

ELECTRICAL

Standard 120V, 60Hz, thermally protected, automatic resetting, Class P, high inrush factor, sound rated A, ENEC NEMA Premium compliant. Ballast leads extend a minimum of 6" for easy access to connection. NEC/CEC-compliant ballast disconnect standard.

CEILING COMPATIBILITY

Fixture is available to fit most standard ceiling types. For information on compatibility with specific ceilings, contact your Columbia representative.

FINISH

Painted parts are treated with a five stage phosphate bonding process and finished with a high temperature baked white enamel. End cap painted housing, suffix catalog number with P-5. Regressed slots are black. Louver finish is semi-specular, matte anodized aluminum for use with tri-phosphor lamps. Also available in non-iridescent semi-specular matte anodized (MA), and specular (LS).

AIR HANDLING

All supply/return and extract functions are available. A specified directional control vane and/or extract damper fixtures available. Air extract is indicated out of sight in end caps. See catalog for details.

INSTALLATION

Access panels furnished with each luminaire for wiring access from the plenum. No need to open fixture. Product ships standard with mylar cover to eliminate job site contamination.

ORDERING INFORMATION

EXAMPLE P414-132G-LD16-S-EU

P4	14						
MODEL	NO. LAMPS	CEILING TYPE	NO. CELLS CROSSWISE	NO. CELLS LENGTHWISE	BALLAST		OPTIONS
P4 Recessed Air Handling Parabolic	1 One	G Grid F Overlay Flange M Modular Fit-in Trim Slot Grid SM Surface Mount	1 One 2 Two	6 Six 8 Eight	E Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start For a specific ballast vendor show as option.		F835 35K 78+ CRI T8 Lamps Installed F0835 35K 82 CRI T8 Lamps Installed F5835 35K 85 CRI T5 Lamps Installed 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
	LAMP TYPE	LOUVER FINISH		AIR FUNCTIONS	VOLTAGE		
14 1' x 4'	28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 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		

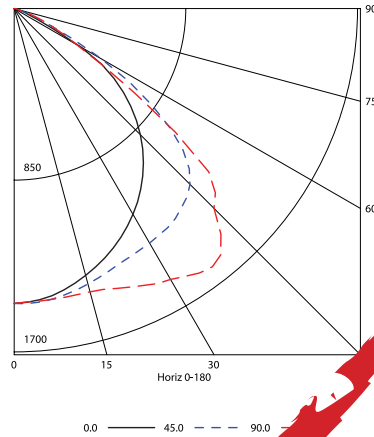
PHOTOMETRIC DATA

Test 11190 Test Date 6/11/03

LUMINAIRE DATA

Luminaire	P414-232G-LD18-E-PAF
	P4 Parabolic
	1 x 4 2-Lamp with 1 x 8 Cell Semi-Specular Louver
Ballast	B2321120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	60
Shielding Angle	N/A
Spacing Criterion	Along = 1.22 Across = 1.66

INDOOR CANDELA PLOT



ENERGY DATA

Total Luminaire Efficiency	65.9%
Luminaire Efficacy Rating (LER)	56
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	5.22 based on 3000 hrs. and \$0.08 per KWH

AVG. LUMINANCE (Candela/Sq. M.)

	0.0	45.0	90.0
0	5410	5410	5410
30	5202	5202	5202
40	5208	5208	5208
50	5208	5208	5208
60	5208	5208	5208
65	5208	5208	5208
70	5208	5208	5208
75	5208	5208	5208
80	5208	5208	5208
85	5208	5208	5208
90	5208	5208	5208

ZONAL LUMENS SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1170	20.2	30.6
0-40	2002	34.5	52.3
0-60	3579	61.7	93.6
0-90	3824	65.9	100.0
0-180	3824	65.9	100.0

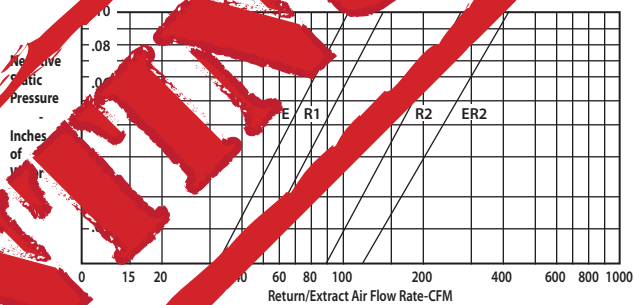
COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0	
	1	73	71	68	66	71	69	67	65	66	65	63	58	
	2	68	63	59	56	66	62	58	55	59	57	54	50	
	3	62	56	51	48	61	55	51	47	53	49	46	44	
	4	57	50	45	41	56	49	44	41	48	43	40	38	
	5	53	45	40	35	51	44	39	35	43	38	35	33	
	6	49	41	35	31	48	40	35	31	39	34	31	29	
	7	45	37	31	27	44	36	31	27	35	31	27	26	
	8	42	33	28	24	41	33	28	24	32	28	24	23	
9	39	31	25	22	38	30	25	22	30	25	22	21		
10	37	28	23	20	36	28	23	20	27	23	20	18		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

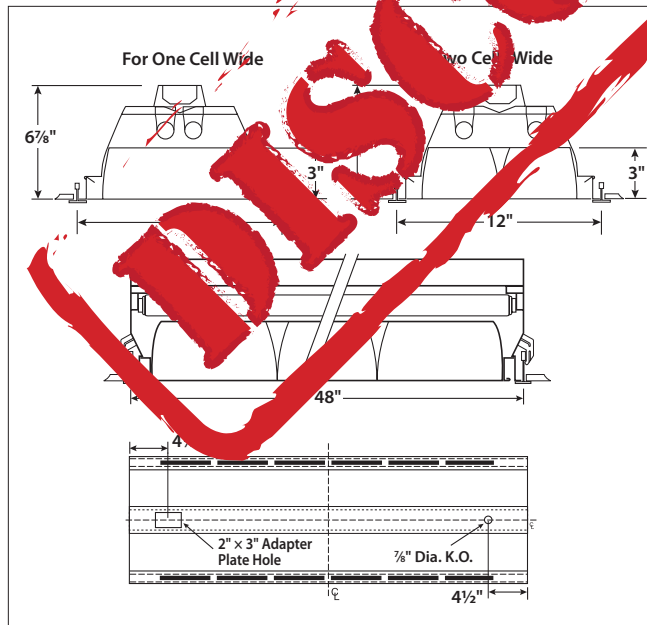
EXTRACTOR DATA



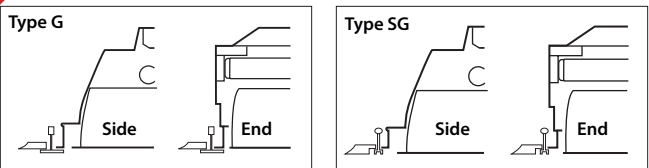
E - Heat Extract thru Lamp Compartment
R1 - Air Return thru One Side Passage
R2 - Air Return thru Two Side Passages

R1 - Air Return thru One Side Passage
ER2 - Thru Both Sides and Lamp Compartment

DIMENSIONAL DATA

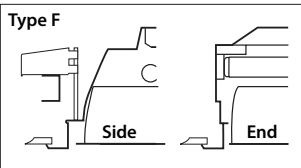


CEILING COMPATIBILITY



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

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.



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.

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: 12 1/2" x 48 1/2"

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