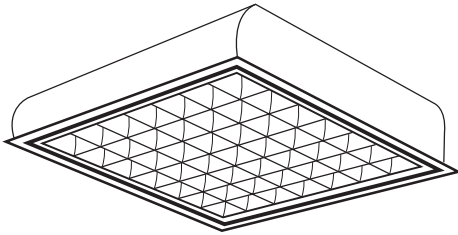


1½" Deep Louver



FEATURES

- 1½" deep small cell louver reduces glare
- Ideal for today's computer intensive electronic offices
- Proper lamp position ensures 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 steel. Parabolic louver is constructed of low iridescent aluminum in choice of finishes. Louver is secured in open or closed position by die formed steel hinges and can be hinged from either side. Mechanical light trap prevents light leaks. Positive feed spring steel latches are concealed in black reveal.

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.

AIR HANDLING

All supply/return and air extract functions are available as a specified option. Directional control vanes and/or extract damper features available. Air extract slots are located out of sight in end caps. See air removal data on reverse.

INSTALLATION

An access plate is furnished with each luminaire for fast wiring access from the plenum. No need to open fixture. Product ships standard with mylar dust cover to eliminate job site contamination.

BALLASTS

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

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 T-bar clips supplied with all grid trim fixtures. See ceiling details on reverse. Contact your Columbia representative for compatibility information for specific ceiling types.

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.

ORDERING INFORMATION

EXAMPLE P422-217G-LD77-S-EU

P4	22	-	-	-	-	-
MODEL	NO. OF LAMPS	CEILING TYPE	NO. OF CELLS	BALLAST	OPTIONS¹	
P4 Recessed Air Handling Small Cell Parabolic	2 Two 3 Three	G Grid F Overlap Flange M Modular Fit-in Trim SG Slot Grid	66 6 x 6 (36 nominal 3" x 3" cells) 77 7 x 7 (49 nominal 2½" x 2½" cells)	E Electronic T8, Instant Start 3E 3-Lamp Electronic T8, Instant Start ETT Electronic Twin Tube, Instant Start (Specify voltage) 3ETT 3-Lamp Electronic Twin Tube, Instant Start (Specify voltage) For a specific ballast vendor show as option.	GLR Fast Blow Fuse GMF Slow Blow Fuse EL Emergency Battery Pack F0735 35K 75 CRI T8 Lamps Installed F0835 35K 80 CRI T8 Lamps Installed F5835 35K 80 CRI T5 Lamps Installed 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'	32U6 U-Bent, 6" Leg Spacing T8: 32 Watt 31U1 U-Bent, 1½" Leg Spacing T8: 31 Watt 40TT Twin Tube Compact, 2G11 Base: 40 Watt 17 2', T8: 17 Watt	LD Low Iridescent Semi-Specular (Std.) LS Low Iridescent Specular MA Matte Anodized Low Iridescent Semi-Specular Aluminum	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.

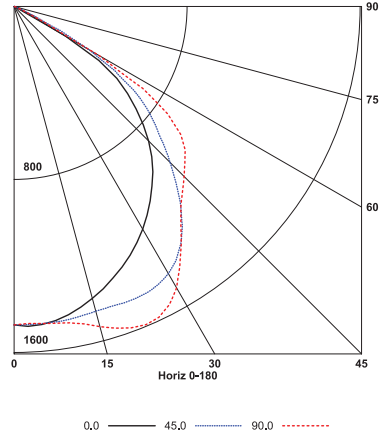
PHOTOMETRIC DATA

Test 9419 Test Date 1/8/03

LUMINAIRE DATA

Luminaire	P422-240U6G-SP77-E P4 Parabolic 2 x 2-Lamp with Ecolite 7 x 7 Cell Frameless Specular Louver 1 1/2" Deep
Ballast	446-LR-TC
Ballast Factor	0.95
Lamp	FB40WW
Lumens per Lamp	3050
Watts	87
Mounting	Recessed
Shielding Angle	N/A
Spacing Criterion	0° = 1.20 90° = 1.40

INDOOR CANDELA PLOT



ENERGY DATA

Total Luminaire Efficiency	57.8%
Luminaire Efficacy Rating (LER)	40
ANSI/IESNA RP-1-2004 Compliance	Yes - VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$6.00 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	5057	5057	5057	5057	5057
30	4717	5007	5657	5931	5959
40	4476	5028	5373	5288	5382
45	4271	4883	4951	5146	5403
50	3934	4485	4559	5110	5516
55	3474	3750	4043	4732	5199
60	1897	2261	2762	3010	3133
65	220	358	780	455	415
70	100	111	121	121	121
75	66	80	80	80	80
80	40	59	59	40	40
85	39	39	39	39	39

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1217	20.0	34.5
0-40	2015	33.0	57.2
0-60	3406	55.8	96.6
0-90	3525	57.8	100.0
0-180	3525	57.8	100.0

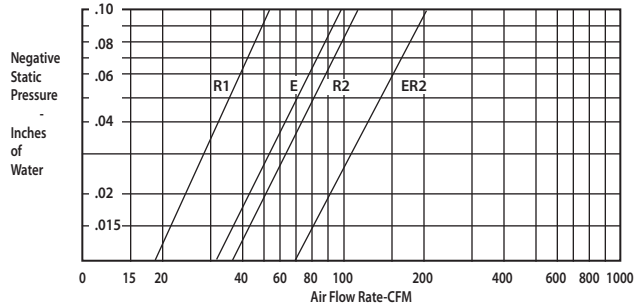
COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50					0				
	RW	70	50	30	10	70	50	30	10	50	30	10	0	70	50	30	10	0		
1	64	62	60	59	63	61	59	58	59	57	56	52	48	45	42	39	37	35		
2	60	56	53	50	58	55	52	50	53	50	48	45	42	39	37	35	33	30		
3	55	50	46	43	54	49	46	43	48	44	42	39	37	35	33	31	28	27		
4	51	45	41	37	50	44	40	37	43	39	37	35	33	31	28	25	24	21		
5	47	41	36	33	46	40	36	32	39	35	32	30	28	26	23	21	20	19		
6	44	37	32	29	43	36	32	29	35	31	28	27	25	23	21	20	19	17		
7	41	33	29	26	40	33	29	25	32	28	25	24	22	20	19	18	17	16		
8	38	31	26	23	37	30	26	23	29	25	23	21	20	19	18	17	16	15		
9	35	28	24	21	35	28	23	21	27	23	20	19	18	17	16	15	14	13		
10	33	26	22	19	32	26	21	19	25	21	19	18	17	16	15	14	13	12		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

EXTRACT AIR DATA Report AL-526-1.1



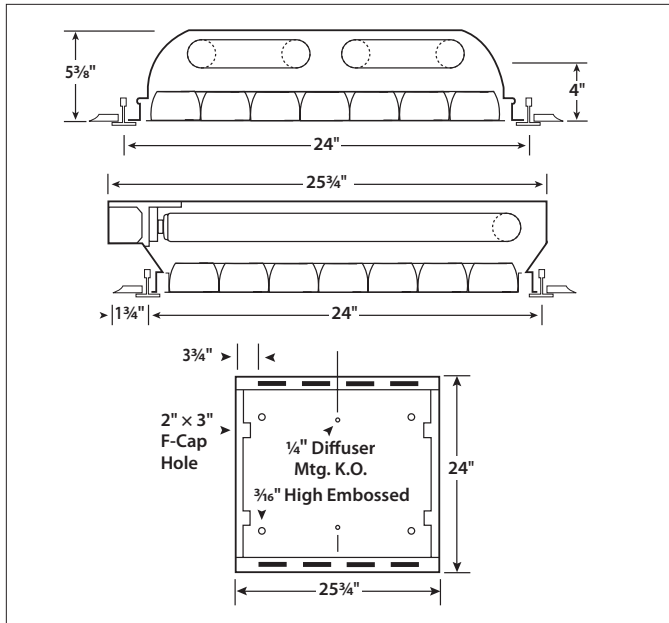
R1 - Air Return thru One Side Passage

R2 - Air Return thru Two Side Passages

E - Heat Extract thru Lamp Compartment

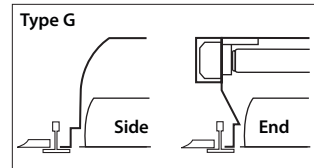
ER2 - Thru Both Sides and Lamp Compartment

DIMENSIONAL DATA

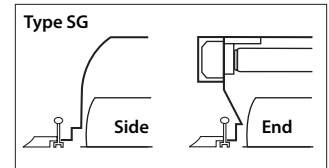


NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

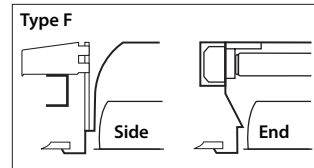
CEILING COMPATIBILITY



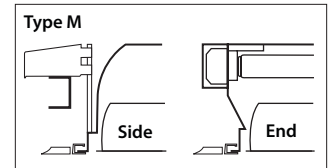
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 1 1/2" allowed.



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: 24 1/8" x 24 1/8"