

Also available with 12, 16, 24, or 32 cells

FEATURES

- Nominal 3" deep louver
- Black reveal with full air handling capabilities
- Matte anodized low iridescent, semi-specular (MA) louver finish virtually eliminates visibility of fingerprints and construction dust
- Shallow housing height
- Lightweight

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 DuraLouver® anodized aluminum and secured in open or closed position by die formed steel hinges. Louver hinges from either side. Mechanical light trap prevents light leaks. Latches are finger-tip actuated, positive feed type, fabricated of spring steel, and completely concealed in the black reveal.

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.

FINISH

Parts are treated with a five stage phosphate bonding process and finished with a high temperature baked white enamel. For post painted housing, suffix catalog number with PAF. Regressed slots are flat black. Anodized aluminum DuraLouver standard finish is matte anodized low iridescent (MA). Also available in low-iridescent semi-specular natural anodized aluminum (LD) or low-iridescent specular aluminum (LS).

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.

CEILING COMPATIBILITY

Luminaire is available to fit exposed grid ceilings. For hard ceilings order accessory flange kit. Some options may increase fixture depth. For information on compatibility with specific ceilings, or where plenum depth is a problem, contact your Columbia representative. Four integral T-bar clips are standard. Two or four non-integral T-bar clips are available as an option.

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.

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 P4D24-232G-MA26-S-U

P4D		24 -		G -							
MODEL	NO. OF LAMPS	CEILING TYPE	NO. CELLS CROSSWISE	NO. CELLS LENGTHWISE	BALLAST	OPTIONS	SIZE	LAMP TYPE	LOUVER FINISH	AIR FUNCTIONS	VOLTAGE
P4D DuraLouver Parabolic	2 Two 3 Three 4 Four	G Inverted T-bar <small>For hard ceilings use flange kit; see accessories.</small>	2 Two 3 Three 4 Four	6 Six 8 Eight	E Electronic T8, Instant Start 3E 3-Lamp Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start 3EP 3-Lamp Electronic T5 or T8, Programmed Start <small>For a specific ballast vendor show as option.</small>	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	24 2' x 4'	28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 Watt	MA Matte Anodized Low Iridescent Semi-Specular Aluminum (std.) LS Low Iridescent Specular Aluminum	S Static ¹ A Air Handling ¹ AV Air Handling w/Supply Vanes ¹ C Combination Supply/Extract ² CV Combination Supply Vanes/Extract ² CD Combination Supply Extract Dampers ² CVD Combination Supply Vanes Extract Dampers ² H Heat Extract ² HD Heat Extract w/Dampers ²	U 120V-277V 347 347V
ACCESSORIES											
FK24 2' x 4' Single Flange Kit											
FKCR Flange Kit Row Adapter Brackets PARABOLICS / P4D24											

¹ Fixtures supplied with integral T-bar clips.

² Fixtures supplied with two non-integral, screw-type T-bar clips.

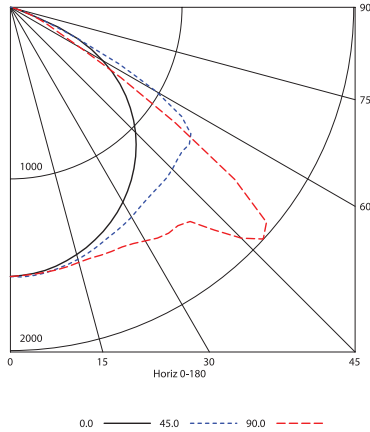
PHOTOMETRIC DATA

Test 12449 Test Date 4/29/03

LUMINAIRE DATA

Luminaire	P4D24-232-LD26-E-PAF P4D Parabolic 2' x 4' 2-Lamp with 2 x 6 Cell Semi-Specular Louver
Ballast	B232I120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	57
Shielding Angle	N/A
Spacing Criterion	Along = 1.26 Across = 1.58

INDOOR CANDELA PLOT



ENERGY DATA

Total Luminaire Efficiency	80.1%
Luminaire Efficacy Rating (LER)	72
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.33 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	2587	2587	2587	2587	2587
30	2495	2535	2688	2882	2993
40	2444	2530	2916	3297	3508
45	2405	2552	3112	3861	4435
50	2341	2577	3352	4560	4997
55	2240	2611	3690	3894	3368
60	2049	2580	3240	1943	1551
65	1694	2186	1710	964	941
70	641	1013	704	603	579
75	198	249	274	261	223
80	124	143	133	114	105
85	76	95	114	76	76

ZONAL LUMEN SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	1251	21.6	26.9
0-40	2126	36.6	45.7
0-60	4177	72.0	89.9
0-90	4647	80.1	100.0
0-180	4647	80.1	100.0

COEFFICIENTS OF UTILIZATION (%)

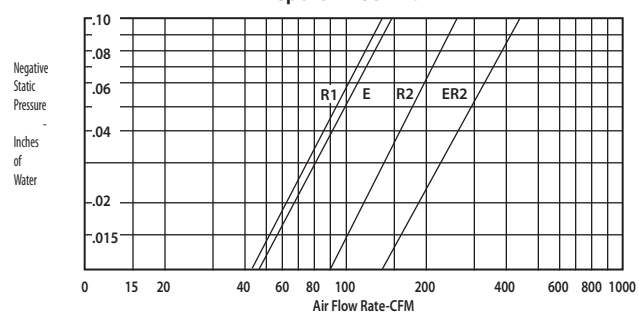
RC	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	88	85	82	80	86	83	81	78	80	78	76	70	70
2	81	75	70	66	79	74	69	65	71	67	64	59	59
3	74	66	60	55	72	65	60	55	63	58	54	51	51
4	68	59	52	47	66	58	52	47	56	50	46	43	43
5	62	52	45	40	61	52	45	40	50	44	40	37	37
6	57	47	40	35	56	46	40	35	45	39	35	32	32
7	53	42	36	31	52	42	35	31	41	35	30	28	28
8	49	39	32	27	48	38	32	27	37	31	27	25	25
9	46	35	29	24	45	35	28	24	34	28	24	22	22
10	43	32	26	22	42	32	26	22	31	26	22	20	20

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

EXTRACT AIR DATA

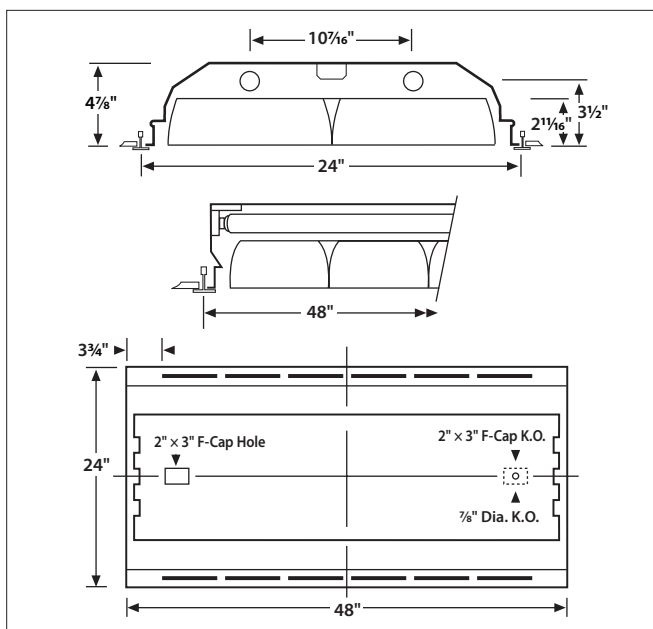
Report AL-534-1.1



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

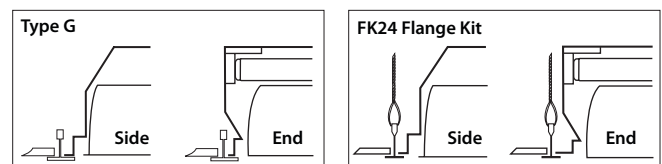
E - Heat Extract thru Lamp Compartment
ER2 - Thru Both Sides and Lamp Compartment

DIMENSIONAL DATA



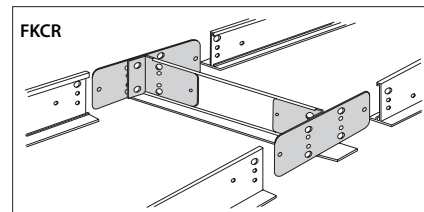
NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

CEILING COMPATIBILITY



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

For hard ceiling applications order FK24 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.



For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK24 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK24 & (1) FKCR)

Row cut out dimensions using FK24s & FKCR adapters:
Width 24 3/8", Length [48" x (# in row)] + 3/8". Example: (48" x 2) + 3/8" = 96 3/8"

Flange kit rough in dimensions for single unit only: 24 3/8" x 48 3/8"