

**FEATURES**

- Enhanced optics for 89% efficiency
- Nominal 3" deep parabolic louver provides excellent glare control and maintenance-free operation
- Optimized for standard T8 lamp technology; reduces power usage to 67 watts
- EnergyMax Plus™ parabolic uses 28W T8 technology and reduces power usage to 56 watts
- Typically qualifies for EPA tax deduction
- Custom MIRO® 5 formulation louver developed by Alanod for Columbia Lighting
- Proper lamp position provides maximum efficiency with controlled widespread distribution
- Shallow 4 7/8" housing height allows installation in restricted ceiling areas
- Lightweight and contractor friendly for ease of installation
- Full black reveal provides floating louver appearance and full air handling capability

**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 MIRO 5 anodized aluminum and 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**

Parts are treated with a five stage phosphate bonding process and finished with a high temperature baked white enamel. Regressed slots are flat black. Reflectors painted after fabrication with high reflectivity white polyester enamel.

**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. For hard ceilings order G trim and FK flange accessory. Contact your Columbia representative for compatibility information for specific ceiling types.

**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.

**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.

**ORDERING INFORMATION**

**EXAMPLE EMX24-232G-M52-6--U-**

EMX	24	-	2	32	G	-	M5	2	6	-	-	U	-
MODEL	NO. OF LAMPS		CEILING TYPE		NO. CELLS CROSSWISE		NO. CELLS LENGTHWISE		BALLAST		OPTIONS <sup>3</sup>		
EMX EnergyMax® Energy Saving Parabolic	2 Two		G Inverted T-Bar (For hard ceilings use flange kit; see Accessories)		2 Two		6 Six		E104 Electronic T8, 1.04 Ballast Factor, Instant Start <sup>5</sup> (N/A 1-Lamp) ESD104 Electronic T8, 1.04 Ballast Factor, Step Dimming, Programmed Start <sup>5</sup> EP104 Electronic T8, 1.04 Ballast Factor, Programmed Start <sup>5</sup> E Electronic T8, 0.88 Ballast Factor Instant Start ESD Electronic T8, 0.88 Ballast Factor, Step Dimming, Programmed Start ELW Electronic T8, 0.77 Ballast Factor, Low Wattage, Instant Start EHL Electronic T8, 1.18 Ballast Factor, High Wattage, Instant Start		GLR Fast Blow Fuse GMF Slow Blow Fuse EL Emergency Battery Pack F0830 T8 Lamp Installed 80 CRI, 3000K F0835 T8 Lamp Installed 80 CRI, 3500K F0841 T8 Lamp Installed 80 CRI, 4100K PLUS830 30K, 80 CRI, T8, 28W Lamps Installed <sup>3</sup> PLUS835 35K, 80 CRI, T8, 28W Lamps Installed <sup>3</sup> PLUS841 41K, 80 CRI, T8, 28W Lamps Installed <sup>3</sup> C388 3-Wire Flex C488 4-Wire Flex TB4 Four Bulk T-Bar Clips NYC NYC Compliant NYCU NYC Compliant, Union Made		
SIZE	LAMP TYPE	LOUVER FINISH	AIR FUNCTIONS		VOLTAGE								
24 2' x 4'	32 4', T8: 32, 30, 28, 25 Watt	M5 MIRO-5	S Static <sup>1</sup> A Air Handling <sup>1</sup> AV Air Handling w/Supply Vanes <sup>1</sup> C Combination Supply/Extract <sup>2</sup> CV Combination Supply Vanes/Extract <sup>2</sup> CD Combination Supply Extract Dampers <sup>2</sup> CVD Combination Supply Vanes Extract Dampers <sup>2</sup> H Heat Extract <sup>2</sup> HD Heat Extract w/Dampers <sup>2</sup>		U 120V-277V								
ACCESSORIES (ORDER SEPARATELY)													
FK24 2' x 4' Single Flange Kit													
FKCR Flange Kit Row Adapter Brackets*													
*See next page for details.													

<sup>1</sup> Fixtures supplied with integral T-Bar clips.  
<sup>2</sup> Fixtures supplied with two non-integral, screw-type T-Bar clips.  
<sup>3</sup> EL or other options may increase fixture depth.  
<sup>4</sup> Not compatible with T8 25, 28, or 30 watt energy savings lamps.  
<sup>5</sup> For EnergyMax™ Plus, order "-PlusXX" lamps under "Options."

Protected by US Patent 6,582,098.  
 Specifications subject to change without notice.



**PHOTOMETRIC DATA**

Test ITL58413 Test Date 2/26/07

**LUMINAIRE DATA**

Luminaire	EMX24-232G-M526-E104U EMX Parabolic 2' x 4' 2-Lamp with 2 x 6 Cell Semi-Specular Louver
Ballast	B232IUNV104-A
Ballast Factor	1.04
Lamp	F32T8
Lumens per Lamp	2950
Total Input Watts	68
Mounting	Recessed
Shielding Angle	0° = 21 90° = 30
Spacing Criterion	0° = 1.38 90° = 1.71

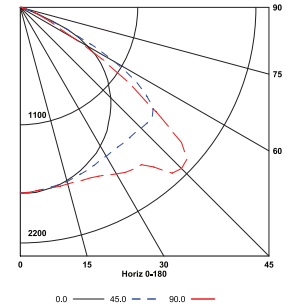
**AVG. LUMINANCE (Candela/Sq. M.)**

	0.0	22.5	45.0	67.5	90.0
0	2847	2847	2847	2847	2847
30	2836	2873	3052	3292	3412
40	2806	2927	3407	3876	4176
45	2774	2984	3695	4631	4941
50	2723	3057	4114	4876	5033
55	2629	3129	4142	3929	3624
60	2405	3012	3322	2319	1844
65	1893	2330	1858	1222	1163
70	786	950	752	728	709
75	249	242	255	312	312
80	162	143	124	133	143
85	132	114	95	76	95

**COEFFICIENTS OF UTILIZATION (%)**

RCR	80			70			50			0			
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	98	95	92	89	96	93	90	87	89	87	85	78	
2	90	84	78	74	88	82	77	73	79	75	71	66	
3	83	74	67	62	80	72	66	61	70	65	60	56	
4	76	65	58	52	74	64	57	52	62	56	51	48	
5	69	58	51	45	68	57	50	45	55	49	44	41	
6	64	52	45	39	62	51	44	39	50	43	38	36	
7	59	47	39	34	57	46	39	34	45	39	34	31	
8	55	43	35	30	53	42	35	30	41	35	30	28	
9	51	39	32	27	50	39	32	27	38	31	27	25	
10	48	36	29	24	46	35	29	24	35	28	24	22	

**INDOOR CANDELA PLOT**



**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	1397	23.7	26.6
0-40	2403	40.7	45.7
0-60	4737	80.3	90.1
0-90	5260	89.1	100.0
0-180	5260	89.1	100.0

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

**ENERGY DATA**

Total Luminaire Efficiency	89.1%
Luminaire Efficacy Rating (LER)	80
IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.00 based on 3000 hrs. and \$0.08 per KWH

**LUMINAIRE DATA**

Luminaire	EMX24-232G-M526-E104U-PLUS EMX Parabolic 2' x 4' 2-Lamp with 2 x 6 Cell Semi-Specular Louver
Ballast	B232IUNV104-A
Ballast Factor	1.04
Lamp	F26T8
Lumens per Lamp	2750
Watts	55
Mounting	Recessed
Shielding Angle	0° = 20 90° = 30
Spacing Criterion	0° = 1.27 90° = 1.71

**AVG. LUMINANCE (Candela/Sq. M.)**

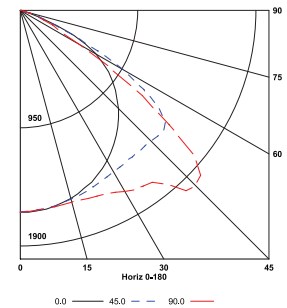
	0.0	22.5	45.0	67.5	90.0
0	2672	2672	2672	2672	2672
30	2655	2690	2859	3088	3202
40	2629	2741	3189	3639	3926
45	2601	2795	3464	4344	4636
50	2561	2874	3868	4563	4712
55	2485	2957	3903	3704	3440
60	2293	2874	3151	2214	1768
65	1839	2252	1784	1171	1109
70	801	941	723	690	675
75	236	229	242	300	293
80	143	133	114	124	133
85	95	95	76	76	76

**COEFFICIENTS OF UTILIZATION (%)**

RCR	80			70			50			0			
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	99	96	92	89	97	94	91	88	90	88	85	78	
2	91	84	79	74	89	83	78	73	80	75	72	67	
3	83	74	68	62	81	73	67	62	70	65	61	57	
4	76	66	58	53	74	65	58	52	63	57	52	48	
5	70	59	51	45	68	58	50	45	56	49	45	42	
6	64	53	45	39	63	52	44	39	50	44	39	36	
7	60	48	40	34	58	47	39	34	45	39	34	32	
8	55	43	36	30	54	43	35	30	41	35	30	28	
9	51	39	32	27	50	39	32	27	38	31	27	25	
10	48	36	29	24	47	36	29	24	35	29	24	22	

Test ITL58463 Test Date 3/12/07

**INDOOR CANDELA PLOT**



**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	1310	23.8	26.5
0-40	2253	41.0	45.5
0-60	4449	80.9	89.9
0-90	4950	90.0	100.0
0-180	4950	90.0	100.0

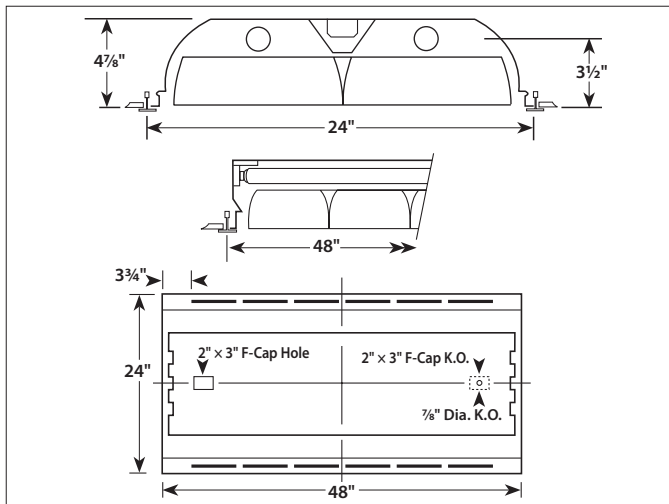
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

**ENERGY DATA**

Total Luminaire Efficiency	90.0%
Luminaire Efficacy Rating (LER)	0
IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.70 based on 3000 hrs. and \$0.08 per KWH

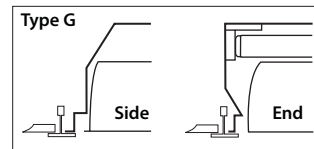
**DIMENSIONAL DATA**



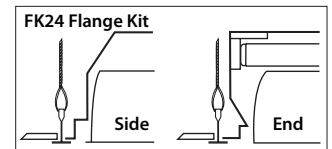
**NOTE:** All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

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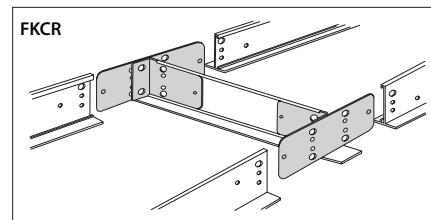
**CEILING COMPATIBILITY**



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.



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"

PARABOLICS / EMX24-2-T8