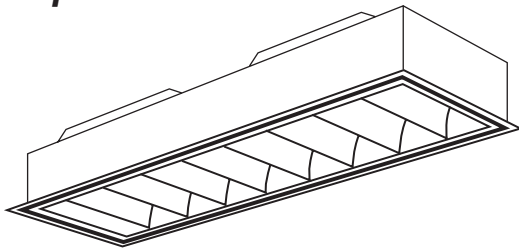


45 Parabolic Recessed

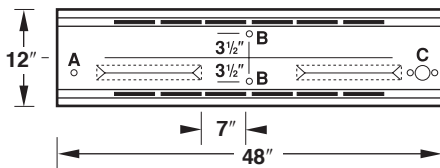
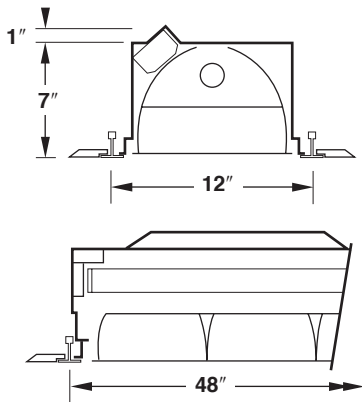
4514-1 9 Cells

1' x 4' Parabolic 1 Lamp

4" Deep Louver



Also available with two lamps



**Backpan
K.O. Diagram**
A - 7/8" Dia. K.O. (1)
B - 1/4" Dia. K.O. (2)
**C - 1 1/2" Dia. K.O. with
2.128" Dia. K.O. (1)**

Type: _____

Job Description: _____

Features

- Meets IES standard RP-1 glare control recommendations.
- Deep parabolic louver provides excellent glare control with good efficiencies.
- Pre-anodized louver provides years of maintenance-free operation with maximum glare control.
- Automated louver assembly provides precise baffle fit insuring gap-free louver corners.
- Proper lamp position provides maximum efficiency with controlled widespread distribution.
- Full black reveal provides floating door appearance.

Construction

Luminaire housing and end caps are die formed code gauge cold rolled 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, positive feed type, fabricated of spring steel and completely concealed in the black reveal.

Finish

Painted 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. Louver is standard semi-specular natural anodized aluminum (LD) for use with tri-phosphor lamps. Also available in specular (SP).

Air Handling

All supply/return and air extract functions are shown on the reverse side of this sheet and are available as a specified option. Directional control vanes and/or extract dampers must be specified. Air extract slots are located out of sight in end caps. Air removal data is on reverse side of sheet.

Installation

For fast wiring connections without the necessity of opening fixture or wireway, an adapter plate is furnished with each luminaire. A plastic dust cover which eliminates construction dust and protects the lamps is provided as standard. For row mounting, row information is required. Recessed knockouts will be provided for row fixtures.

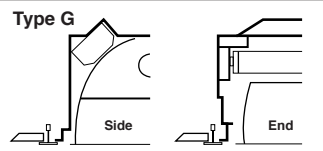
Labels & Electrical

All luminaires are listed with UL and bear UL recessed fixture labels. Completely wired with standard class "P", thermally protected, resetting, HPF, CBM, LE ballasts. Sound rated A. All ballast leads extend a minimum of 6" through the access plate.

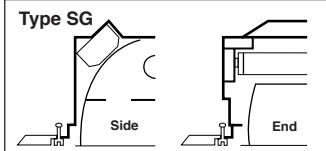
Ceiling Compatibility

Luminaire is available to fit most standard ceiling types as shown at the left. For information on compatibility with specific ceilings contact your Columbia representative. Luminaires for concealed suspension ceiling are furnished with integral T-bar clips.

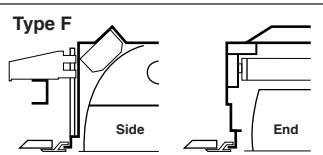
Ceiling Compatibility



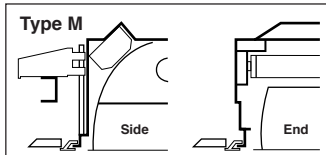
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 1 1/2" allowed.



For 3/16" 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 from concealed suspension and includes all adjustable wing hangers.

Flanged cut out dimension for single unit only: 12 1/8" x 48 1/8"

Complete ordering information on back. Dimensions and specifications subject to change without notice.



Tel 509 924 7000
PO Box 2787 (99220) 3808 North Sullivan Road Spokane WA 99216

Environmental Laboratories

REPORT # 10232
DATE: 9/23/92

LUMINAIRE: P4-141G-49193-PAF-EBB

1 X 4 1-LAMP WITH 1 X 9 CELL SEMI-SPECULAR LOUVER
BAL.: B2321120; LAMP: F032; B.F.: 1.15; WATTS: 35
LAMPS RATED AT 2900 LUMENS EACH
LUMINOUS AREA: 45.1 X 9.1

REFLECTANCE: NA

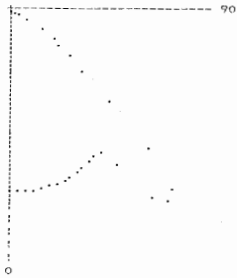
MOUNTING: RECESSED

S/MH: PARL 1.22 NORM 1.83

PLOT OF NORMAL PLANE SHIELDING: PARL 36 NORM 40

CANDLE POWER

DEG	0	22.5	45	67.5	90
0	891.	891.	891.	891.	891.
5	887.	890.	895.	894.	891.
10	872.	880.	894.	876.	894.
15	845.	861.	881.	888.	887.
20	813.	834.	858.	873.	875.
25	772.	801.	829.	850.	854.
30	723.	759.	796.	822.	827.
35	667.	710.	778.	849.	929.
40	601.	663.	785.	1110.	1222.
45	522.	614.	812.	986.	954.
50	404.	514.	687.	529.	472.
55	140.	278.	355.	291.	297.
60	14.	29.	127.	165.	179.
65	7.	9.	23.	42.	40.
70	4.	5.	5.	6.	5.
75	2.	2.	3.	2.	2.
80	1.	1.	1.	1.	1.
85	0.	0.	0.	0.	0.
90	0.	0.	0.	0.	0.



ZONAL SUMMARY

ZONE	LUMENS	LAMP	FIXT
0-30	711.	24.5	33.8
0-40	1218.	42.0	57.9
0-60	2063.	71.1	98.0
0-90	2105.	72.6	100.0
90-180	0.	0.0	0.0
0-180	2105.	72.6	100.0

This photometric test was performed using a specific ballast / lamp combination. Extrapolation of these data for other ballast / lamp combinations may produce erroneous results. The ballast factor must be applied to the lumen output rating assigned to the lamp(s) or to the candlepower values shown. Luminaire efficacy rating (LER) per NEMA LE5-1993.

LER = FP-70

TESTED BY: *R.K.* APPROVED BY: *[Signature]*

TEST RUN IN ACCORDANCE TO CURRENT I.E.S. PUBLISHED PROCEDURES

Photometric Report No. 10232

Coefficients of Utilization

Zonal Cavity Method

Floor Reflectance - .20

RC RW	80				70				50			0
	70	50	30	10	70	50	30	10	50	30	10	0
1	81	79	77	75	80	77	75	74	74	73	71	67
2	76	72	68	65	75	71	67	65	68	66	63	60
3	71	65	61	57	69	64	60	57	62	59	56	53
4	66	59	54	50	65	58	54	50	57	52	49	47
5	61	53	48	44	60	53	48	44	51	47	43	41
6	57	48	43	39	55	48	42	39	46	42	38	36
7	52	43	38	34	51	43	37	34	42	37	33	32
8	48	39	33	29	47	38	33	29	37	32	29	27
9	44	34	29	25	43	34	29	25	33	28	25	23
10	40	31	26	22	40	31	25	22	30	25	22	20

Coefficients of Utilization

Reflectance - 80, 50, 20
Work Plane Illumination - 100 FC@ 2.5 ft.

VCP

Visual Comfort Probability

Room Room	W L	Ht.	Luminaires Lengthwise				Luminaires Crosswise			
			8.5	10.0	13.0	16.0	Ht.	8.5	10.0	13.0
20	20		92	90	88	83	88	86	78	75
20	40		92	90	88	87	89	86	82	79
30	30		92	91	90	86	89	86	84	76
30	60		93	91	90	86	89	86	84	79
40	40		93	91	90	87	89	86	84	81
40	60		93	91	90	87	89	87	84	81
60	30		93	91	90	88	89	86	84	80
60	40		93	91	90	88	89	87	84	81
60	60		93	91	90	88	89	87	85	81

Energy Data

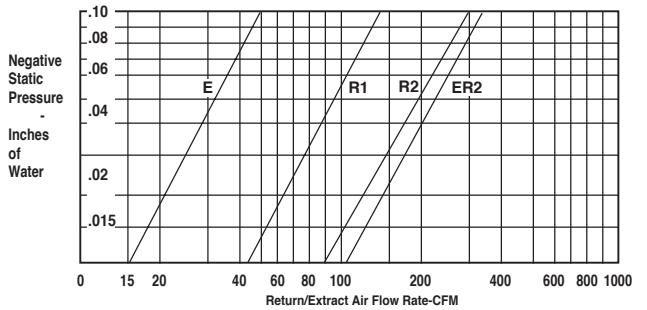
LER: FP-70 **Energy Cost: \$3.43***
Input Watts: 35 **BF: 1.15**

The above energy calculations were conducted using a specific lamp/ballast combination. Actual results may vary depending upon the lamp and ballast used. Lamp and ballast specifications are subject to change without notice.

*Comparative annual lighting energy cost per 1000 lumens based on 3000 hours and \$0.08 per KWH.

Return & Extract Air Data

Report AL-522-1.1



R1 - Air Return thru One Side Passage **E** - Heat Extract thru Lamp Compartment
R2 - Air Return thru Two Side Passages **ER2** - Side Passages and Lamp Compartment

Ordering Information

<p>Model 45 - Recessed 4" Deep</p> <p>Fixture Size 14 - 1' x 4'</p> <p>No. of Lamps 1 - 1 Lamp</p> <p>Lamp Type 40 - 4', T12, 40 Watt 32 - 4', T8, 32 Watt</p> <p>Ceiling Type G - Inverted T-bar F - Flange M - Fit-In Trim SG - Slot Grid SM - Surface Mount (Static only)</p>	<p>No. Cells Lengthwise 9 - Nine</p> <p>No. Cells Crosswise 1 - One</p> <p>Louver Finish SP - Specular LD - Low Iridescence Semi-Specular</p>	<p>Voltage 120 - 120V 277 - 277V U - 120V-277V</p> <p>Ballast E - Electronic T8, Instant Start For a specific ballast vendor, show as option.</p> <p>Air Handling Function S - Static CV - Combination supply vanes/extract CVD - Combination supply vanes extract dampers A - Air handling AV - Air handling w/supply vanes CD - Combination supply extract dampers H - Heat extract HD - Heat extract w/dampers C - Combination supply/extract</p>	<p>Options GMF - Slow Blow Fuse GLR - Fast Blow Fuse CSA - UL listed or CSA certified for Canada EL - Emergency Battery Pack MS9 - Master/Satellite Pair with 9' Harness FO730 - T8 Lamp installed 70 CRI, 3000 K FO735 - T8 Lamp installed 70 CRI, 3500 K FO741 - T8 Lamp installed 70 CRI, 4100 K</p>
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