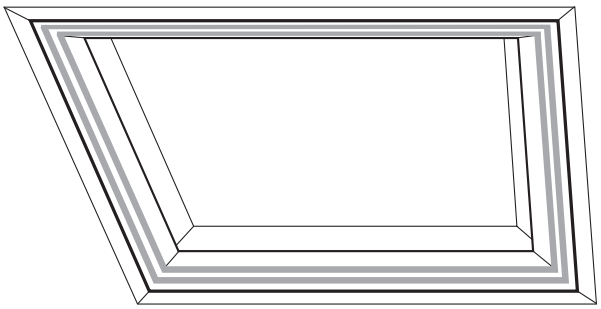
INDIRECT

MIR
MODULAR INDIRECT

TYPE



CZIG shown

Project: _____

Location: _____

DESCRIPTION
Luminaire is designed as a sculptural coffer using indirect fluorescent lighting to provide a custom built appearance in a standard suspended ceiling. All light is reflected off a textured almond white interior surface for effective and comfortable indirect illumination.

CONSTRUCTION
Recessed 9″ deep housing is formed of code gauge steel and welded in a one-piece assembly for installation in a 4′ x 4′ ceiling system. Exposed chamfered "skirt" assembly shields electrical system with concealed lamp source. "Skirt" assembly is of one-piece welded steel construction and held in place by positive drawn heavy duty torsion springs on type "F" version.

FINISH
Finish of interior coffer is a textured baked enamel surface. Color is a neutral cream that efficiently reflects fluorescent source output and provides a warm ambient illumination for most room color schemes. Standard finish of exposed "skirt" is baked, powder coat, matte white enamel. A variety of applied trim options to integrate with interior furnishings and designs are available upon request. For custom colors and trims, consult your Alera representative.

INSTALLATION
Modular Indirect Recessed units are designed for quick installation in 4′ x 4′ ceiling systems. Final wiring and inspection will ordinarily require access from an adjacent ceiling module or through internal electrical wireway.

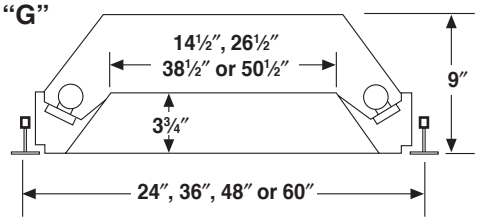
CEILING COMPATIBILITY
Fixture is designed to fit NEMA type G (lay-in) and type F (overlapping flange) ceiling systems. Luminaires for type F ceilings are provided with necessary adjustable wing hangers for leveling and support of unit.

LABELS AND ELECTRICAL
All fixtures bear UL recessed fixture label. Fixtures are designed for use with four lamps. Dimming systems are subject to ballast compatibility and must be quoted. CSA approval available. Use suffix "CSA".

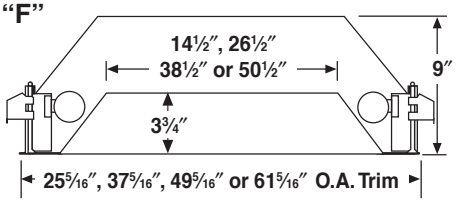
CROSS SECTIONS

Dimensional Information

Type "G"



Type "F"



Dimensions and specifications subject to change without notice.

ORDERING INFORMATION

MIR - 4 - - - - -

Model
MIR - Modular Indirect Recessed

Size
22 - 2′x2′ (39W TT only)
33 - 3′x3′
44 - 4′x4′
55 - 5′x5′

Number of Lamps
4 - Four

Lamp Type
T8 - T8
TT - Twin Tube Compact Fluorescent
T5 - T5
T5HO - T5HO

Ceiling Compatibility
G - Grid Trim (For 1″ inverted T-Bar)
F - Overlap Flange Trim (For hard ceilings)
G cannot be converted to F and F cannot be converted to G.

Ballast Type
E - Electronic, Instant Start (Standard for T8)
ED - Electronic, Dimming, T5/T5HO, 0-10V
EP - Electronic, Programmed Start (Standard for T5 & T5HO, optional for T8)
ETT - Electronic Twin Tube, Instant Start
Unless specified, Alera will use fewest ballasts possible.

Voltage
120 - 120V
277 - 277V
347 - 347V
U - 120V-277V

Skirt Color
MW - Matte White (Std.)
See MTX-1 for other color selections.

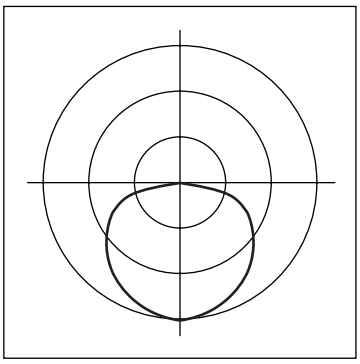
Custom Trim (Optional)
Blank - Solid Trim (Std.)
CZIG - Classical Ziggurat (Specify alternate step color) "G" only
PERF - Perforated Skirt

Options
EFH - Extended Flange Hanger (Minimum 2½″, maximum 4″ depth adjustment)
DL - Damp Label
GLR - Fast Blow Fuse
GMF - Slow Blow Fuse
CSA - UL listed or CSA certified for Canada

4 LAMP

Cat. No.: MIR44-4T8G
Lamps: Four F025/31K
Ballasts: (2) 731-L-TC-P
Test No.: 8447
Efficiency: 40.5%

Candela Curve (90° Plane)



CANDLEPOWER

Deg.	Parl.	45°	Norm.
0	1010	1010	1010
5	1005	995	996
10	986	971	979
15	962	945	956
20	938	915	931
25	910	885	903
30	876	850	871
35	839	815	837
40	798	776	797
45	747	734	751
50	697	688	701
55	648	634	653
60	599	578	605
65	553	525	558
70	500	467	507
75	416	380	421
80	292	248	295
85	24	40	32
90	0	0	0

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance = 0.20

RC	80				70				50			0
RW	70	50	30	10	70	50	30	10	50	30	10	0
1	44	42	40	38	43	41	39	38	39	38	36	34
2	39	36	33	30	38	35	32	30	34	31	29	27
3	36	31	28	25	35	31	27	25	29	27	24	23
4	33	28	24	21	32	27	24	21	26	23	21	19
5	30	24	20	17	29	24	20	17	23	20	17	16
6	27	21	18	15	26	21	17	15	20	17	15	14
7	25	19	15	13	24	19	15	13	18	15	13	12
8	23	17	14	11	22	17	13	11	16	13	11	10
9	21	15	12	9	21	15	12	9	15	12	9	8
10	20	14	11	8	19	14	10	8	13	10	8	7

ZONAL SUMMARY

Zone	Lumens	Lamp	Fixture
0-30	776	9.0	22.3
0-40	1292	15.0	37.1
0-60	2436	28.3	70.0
0-90	3481	40.5	100.0
90-180	0	0.0	0.0
0-180	3481	40.5	100.0

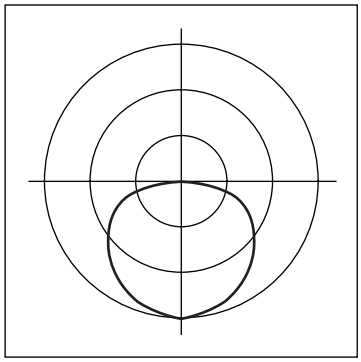
ENERGY DATA

LER: 29 **Energy Cost: $8.28***
Input Watts: 113 **BF: .95**
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 KHW.

4 LAMP

Cat. No.: MIR44-4T12G
Lamps: Four F30T12/WW/RS
Ballasts: (2) RM-2SP30
Test No.: 8448
Efficiency: 37.5%

Candela Curve (90° Plane)



CANDLEPOWER

Deg.	Parl.	45°	Norm.
0	1036	1036	1036
5	1030	1021	1022
10	1010	995	1004
15	986	968	981
20	958	939	957
25	928	906	928
30	896	871	894
35	857	833	857
40	815	793	816
45	762	748	766
50	707	701	713
55	656	644	663
60	606	586	613
65	558	531	564
70	507	471	510
75	420	384	420
80	293	249	292
85	25	41	35
90	0	0	0

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance = 0.20

RC	80				70				50			0
RW	70	50	30	10	70	50	30	10	50	30	10	0
1	41	39	37	35	40	38	36	35	36	35	34	31
2	37	33	31	28	36	33	30	28	31	29	27	25
3	33	29	26	23	32	29	26	23	27	25	23	21
4	30	26	22	20	29	25	22	19	24	21	19	18
5	28	22	19	16	27	22	19	16	21	18	16	15
6	25	20	16	14	24	20	16	14	19	16	14	13
7	23	18	14	12	23	18	14	12	17	14	12	11
8	21	16	13	10	21	16	12	10	15	12	10	9
9	20	14	11	9	19	14	11	9	14	11	9	8
10	18	13	10	8	18	13	10	8	12	10	8	7

ZONAL SUMMARY

Zone	Lumens	Lamp	Fixture
0-30	795	8.4	22.4
0-40	1323	14.0	37.4
0-60	2488	26.4	70.2
0-90	3542	37.5	100.0
90-180	0	0.0	0.0
0-180	3542	37.5	100.0

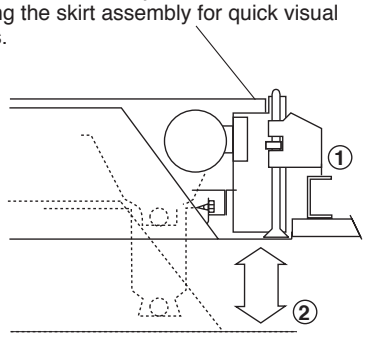
ENERGY DATA

LER: 21 **Energy Cost: $11.43***
Input Watts: 159 **BF: .95**
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 KHW.

FLANGE DETAIL & CEILING COMPATIBILITY

Flange Detail

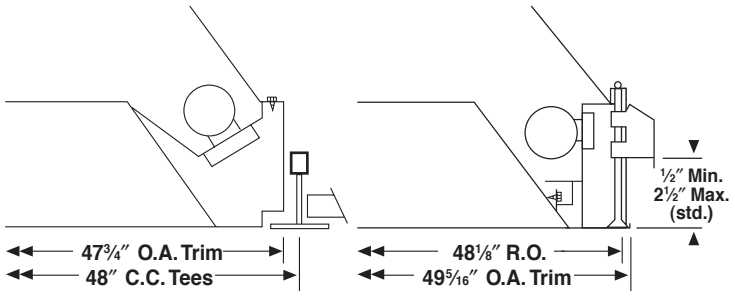
The flanged MIR is installed by drawing the upper housing (1) into the ceiling by vertically adjustable wing hangers. The lower decorative skirt assembly (2) is then attached and drawn tight against the finished ceiling without the use of tools. Relamping may be done by reaching over the skirt assembly as on the "G" version or lowering the skirt assembly for quick visual access.



Standard Ceiling Compatibility

Type G NEMA Type G luminaire for lay-in installation in inverted exposed grid Tee ceilings. Maximum tee width is 1″.

Type F NEMA Type F luminaire has exposed flanges which finish edges of ceiling opening. Concealed suspension by adjustable wing hangers.



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