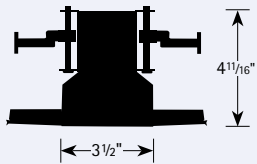


FEATURES

- A slender ribbon of recessed light in a 3½" aperture
- Plaster Flange allows singles or rows to "float" in ceiling
- 1 T5 or T5HO, 1 T8
- Symmetric distribution standard
- Asymmetric available; see MRA P specification sheet
- Plaster Flange option allows fine detail feathering and corrosion resistant mud wings for a truly superior finished aesthetic
- Family includes recessed, cable, surface and wall mount in Microlyne® Mini 2½" aperture and Microlyne® Direct-Indirect 3½" x 5"
- Available with exclusive wiHUBB technology preinstalled (WIH option)
 - Peer to peer, self-healing wireless mesh network
 - Integrated control system for 0-10VDC or step dimming, or On/Off

SHAPE AND DIMENSIONS



PROJECT INFORMATION

Project Name	Type
Catalog No.	Date

CONSTRUCTION

Rigid steel housing includes typical recycled content of 40%.

CONNECTIONS

Secure, simple housing connections provide continuous rows where desired.

MOUNTING

Plaster Flange (P) mounting as described in Housing and Trim section. Microlyne® Recessed is also available in Grid or T-Bar applications or Flange (F) for drywall applications where housing trim is desired to complete the finished appearance as a complementary visible framing mechanism. See separate specification sheets.

REFLECTOR

White high reflectance internal reflector.

SHIELDING

Shielding is provided for single or continuous row. Options match across entire Microlyne® family.

OA - Opal Acrylic lens emphasizes the narrow rectilinear shape by creating a pleasant glow of white light along the underside of the housing.

WCB - White Cross Baffle emphasizes linearity with a crisp, clean bladed appearance.

M4R - 95% Reflective Specular Aluminum louver combines glare control and performance with a high tech appearance.

MA - Matte anodized louvers incorporate an attractive but subtle grain pattern which minimizes the visibility of fingerprints and construction dust without sacrifice to aesthetic qualities.

HEP - High efficiency parabolic specular louver maximizes downlight for enhanced efficiency where maximum light output is the primary concern.

Symmetric downlight distribution is standard and used for general purpose lighting where uniform distribution is desired. Asymmetric downlight louver also available; see MRA P specification sheet.

ELECTRICAL

Fixtures are pre-wired with electronic ballasts in 120V, 277V or 120-277V (U). 347V available on some models; contact factory. Power feed locations as indicated on Technical Installation Data pages or project specific layouts. Night light circuits, emergency circuits or factory installed emergency battery packs must be specified as option.

FINISH

Recessed housing and any visible flange trim is standard white. Zet Silver and additional colors and finishes optional.

CERTIFICATION

All fixtures bear appropriate UL or C UL US labels.

PLASTER FLANGE HOUSING & TRIM

Fine detail corrosion resistant feathering mud wings extend a full 1½" on all sides of the housing to allow consistent, attractive ceiling finish all the way around housing. Maximized feathering edge trims reduce plaster gaps, sags, bumps and depressions associated with inconsistent mud drying time. Wing hangers snug firmly to ceiling structure elements such as C-channel or permanent frame box (both by others) using a simple twist. Design provides ease of installation and unparalleled finished appearance.

Name:	MR-1T5-F-HEP-EP
Test #:	15156
Efficiency:	85.5%
LER:	70

DISTRIBUTION

ORDERING INFORMATION

EXAMPLE: MR-24-1T5-P-OA-EP120-2EL

MR -		- P -		- -	
ROW LENGTH	ROW PATTERN	MOUNTING		VOLTAGE	
4 4' Single	Blank Straight	P Plaster Flange		U 120V-277V	
8 8' Single	P Pattern (specify)	Also available in Grid and Overlap Flange. See separate specification sheets.		120 120V	277 277V
— Indicate row length in 4' increments. ¹	Pattern layouts require factory approval drawings.			347 347V	
MODEL	LAMP TYPE AND PROFILE	DOWNLIGHT SHIELDING	BALLAST	OPTIONS	
MR Microlyne® Recessed	1T5 One T5 Lamp ² 1T5HO One T5HO Lamp ² 1T8 One T8 Lamp ²	OA Opal Acrylic Lens WCB White Cross Baffle MA Matte Anodized Low Iridescent Semi-Specular Aluminum Louver (24 Cell) M4R 95% Reflective Specular Aluminum Louver (24 Cell) HEP High Efficiency Parabolic Specular Louver (15 Cell)	E Electronic, Instant Start, (Std. for T8) EP Electronic, Programmed Start (Std. for T5 & T5HO, optional for T8) ED Electronic, Dimming (Must Specify) ³ ESD Electronic, Step Dimming (Contact factory) ³	LR Left/Right Switching (2-lamp only) EL One Emergency Battery Pack Per Row ^{3, 4, 5, 6} EMC One Emergency Circuit ^{3, 4, 5, 6} NL Night Light Circuit ^{3, 4, 5, 6} GLR Fast Blow Fuse GMF Slow Blow Fuse CSA UL listed or CSA certified for Canada WIH wiHUBB Enabled ⁴	

¹ Rows over 8' will be configured by Alera. Example: 16' will be (2) 8'. For alternate configurations, contact factory.

² Lamps may cause visible socket shadow in downlight component.

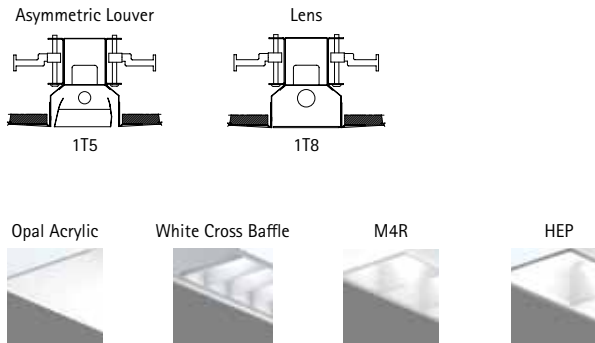
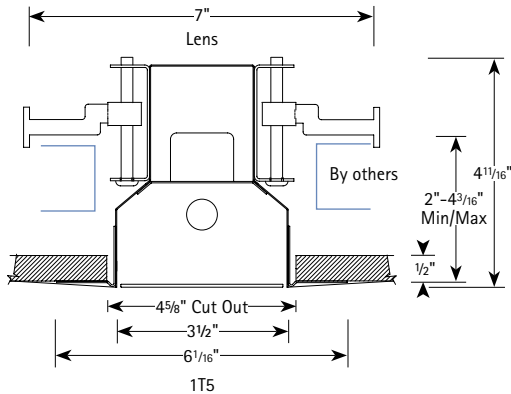
³ Specify dedicated voltage.

⁴ Not available with all configurations; some limitations apply. Contact factory for details.

⁵ One extra feed drop per row with through wiring. (Standard is one 4ft lamp per circuit.)

⁶ For additional, specify quantity before nomenclature (Example: 2EL120, EMC277).

CROSS SECTION



PHOTOMETRIC DATA

LUMINAIRE DATA Test 15156

Luminaire	M-4-1T5-F-HEP-EP Microlyne® Beams 3.5" x 48" 1-Lamp with 15 Cell Louver
Ballast	ICN-2S28
Ballast Factor	1.04
Lamp	F28T5
Lumens per Lamp	2600
Watts	33
Shielding Angle	0° = 19 90° = 33

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	850	32.7	38.3
0-40	1388	53.4	62.5
0-60	2145	82.5	96.5
0-90	2222	85.5	100.0
0-180	2222	85.5	100.0

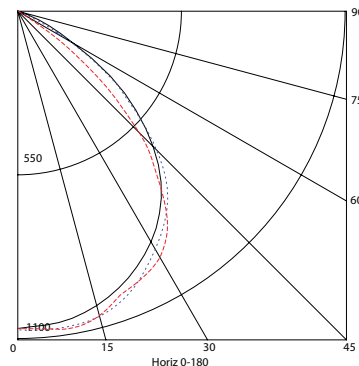
ENERGY DATA

Total Luminaire Efficiency	85.5%
Luminaire Efficacy Rating (LER)	70
IESNA RP-1-1993 Compliance	Yes - VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.43 based on 3000 hrs. and \$0.08 per KWH

COEFFICIENTS OF UTILIZATION (%)

RCR	RC 80				RC 70				RC 50				RC 0			
	RW 70	50	30	10	70	50	30	10	50	30	10	0	0	0	0	
1	96	93	90	87	93	91	88	86	87	85	83	77				
2	89	83	79	75	87	82	78	74	79	76	73	68				
3	82	75	70	65	80	74	69	65	72	67	64	60				
4	76	68	62	57	75	67	61	57	65	60	56	53				
5	71	62	55	50	69	61	55	50	59	54	49	47				
6	66	56	49	45	64	55	49	44	54	48	44	42				
7	61	51	45	40	60	51	44	40	49	44	40	38				
8	57	47	41	36	56	46	40	36	45	40	36	34				
9	54	43	37	33	53	43	37	33	42	36	32	31				
10	50	40	34	30	49	40	34	30	39	33	30	28				

INDOOR CANDELA PLOT



AVERAGE LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	11474	11474	11474	11474	11474
30	11124	11522	11522	11845	11907
40	10524	10707	10890	10749	10454
45	9788	9940	9971	9210	8707
50	8674	8842	8473	6916	6263
55	7112	7169	6381	4204	3284
60	4629	4908	4026	1765	904
65	2980	2802	1808	484	127
70	1164	1039	661	126	63
75	42	42	208	42	42
80	0	0	0	0	0
85	0	0	0	0	0

RCR = Room Cavity Ratio
RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

Test Date 2/5/08

MICROLYNE® FAMILY QUICK REFERENCE PAGE FINDER																				
	MR	MRA	MMR	MMRA	M	MA	MM	MMA	MDI	MDIA										
SYMMETRIC	X		X		X		X		X		X		X		X		X		X	
ASYMMETRIC		X		X		X		X		X		X		X		X		X		X
GRID / SLOT GRID GRID FLANGE / SLOT GRID FLANGE	MRG	MRA G	MMR, MMRA G																	
FLANGE	MRF	MRAF	MMR, MMRAF																	
PLASTER	MRP	MRAP	MMR, MMRAP																	
CABLE					MCM MSTG CM	MACM MA STG CM	MM, MMA CM		MDICM MDI STG CM	MDIA CM MDIA STG CM										
SURFACE					MSM MSTG SM	MASM MA STG SM	MM, MMASM													
WALL					MWM MSTG WM	MAWM MA STG WM	MM, MMA WM		MDIWM MDI STG WM	MDIA WM MDIA STG WM										