



# LR402 SERIES

## Architectural Recessed 1x4 LED Volume Luminaire Chicago Plenum Ultra-Shallow Design

Fixture Type: \_\_\_\_\_

Job Information: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SPECIFICATIONS:

#### LED MODULES:

- High performance linear configured LED module boards.
- Each board consists of multiple mid-power, high efficacy LEDs in a precise layout eliminating the need for supplemental heat sinking.
- The boards produce an even and diffuse light which maximizes optical efficiency.
- Compatible with the dimming performance of the LED driver.
- Color temperatures available: 3000K, 3500K and 4000K.
- Upon request: 5000K.

#### LED DRIVERS:

- Factory programmable constant current LED power supply.
- Multiple standard drive current outputs (factory set by Mercury) are cataloged with their corresponding lumen package offerings. Upon request, custom drive current outputs and lumen packages are available.
- Note: Certain cataloged lumen packages may be provided with a non-programmable constant current LED power supply at Mercury's discretion. Contact factory if critical.
- Universal voltage input, 120V-277V, 50HZ-60HZ.
- Specification grade dimming down to 1% on 0-10V dimming controls.

#### LED LUMEN PACKAGES:

- Cataloged standard lumen packages. See attached chart for full details.
- Custom lumen packages pre-set are optional with programmable drivers only. Contact factory for details.

#### HOUSING:

- All metal parts are fabricated in a computer-controlled operation from heavy gauge code grade cold rolled steel.
- Housing designed to meet all Chicago plenum requirements.
- Rivets hold all parts together for strength and unity.
- A custom formulated non-glare white powder coating is applied to the housing after fabrication providing a reflectivity of at least 90%.

#### DIFFUSER:

- Architecturally-curved profile design.
- Extruded from custom formulated high transmission acrylic material.
- Linear ribbing for high LED performance.

#### STANDBY LIGHTING OPTION:

- Self contained module, 7W, 10W or 12W as specified. Battery backup upon loss of power.
- May not be available with some higher lumen packages. See Lumen Package matrix.

#### INSTALLATIONS:

- Designed for installation into NEMA Type G lay-in acoustical grid ceiling systems, 1" grid or 9/16" fine-line grid.
- For NEMA Type F dry wall applications an additional flange kit must be used with Type G housing.
- Four pry-out style grid support clips are located on the housing sides.
- Four auxiliary suspension points are also provided for securing to building structure.
- A single 7/8" hole for power connection is in accordance with Chicago Plenum requirements.
- Factory installed power whips as specified

#### CERTIFICATE OF SAFETY COMPLIANCE AND LISTINGS:

- Luminaire: UL and CUL listed 1598 and bears their label. Suitable for damp locations.
- Optional: Suitable for wet locations marking is available. Contact factory for all details.
- IC rated. (Some higher lumen packages may not qualify. See Lumen Package matrix).
- Meets the City of Chicago Environmental Air (CCEA) specifications.

#### WARRANTY:

- 5-year limited warranty is standard. Special 10-year warranty available on a job-to-job basis. Complete LED warranty terms available at [www.mercltg.com](http://www.mercltg.com).
- Actual performance may differ as a result of end-user environment and application.
- Most LED luminaires are suitable to operate in ambient temperatures from -20C (-4F) to 25C (77F).
- The following exclusions apply: Luminaires with optional standby lighting option, integral lighting controls options, or wireless control options. Consult factory.
- LM-79 testing was measured under a controlled 25C (77F) ambient operating temperature.

### FEATURES:

- Ultra-shallow recessed 1X4 ambient LED luminaire featuring a single linear high transmission acrylic diffuser.
- Meets the requirements for Chicago Plenum use.
- Architecturally-curved diffuser envelopes the LED light source allowing maximum light transmission while eliminating pixilations and hot spots.
- Delivers a balanced amount of horizontal and vertical illumination.
- Digital LED technology provides high efficacy and energy efficiency.
- Multiple power and light levels are offered as standard to allow meeting design and energy needs per application. Custom factory set levels available on request.
- Lumen maintenance; Reported L70 (hours) & L80 (hours) > 60,000.
- CRI greater than 80.
- Fixture lumens per watt ratios up to 129.
- American Made.



## LR402 SERIES

Fixture Type:

Job Information:

**ORDERING DATA:** Fill in boxes below with corresponding bold options.

Example: LR402-14G-5700-35K-1%-UNI-EM7

| SERIES | MODULE SIZE/CEILING   | NOMINAL LUMENS  | COLOR TEMP                                  | DRIVER   | VOLTAGE | STANDBY LIGHTING OPTIONS | OPTIONS   |
|--------|---|---|---|--|---------|--------------------------|---|
| LR402  | 14G<br>1X4 Module/<br>Nema Type<br>G/Lay-In<br>Grid, 1" or<br>9/16" Fine<br>Line. | 2600<br>3200<br>3700<br>4200<br>4600<br>5700<br>7800<br>11100<br><br>XXXX<br>Custom Lumen<br>Package.<br>Contact Factory. | 30K<br>35K<br>40K<br>50K<br>Upon<br>Request | 1%<br>0-10V, 1%<br>Dimming<br>_____<br>As<br>Specified | UNI     | EM7<br>EM10<br>EM12      | FLX<br>6Ft. Single<br>Circuit<br>Power Flex<br>(Specify Voltage)<br><br>FLX2<br>6Ft. 2-Circuit<br>Power Flex<br>(Specify Voltage)<br><br>WL<br>UL "Suitable for<br>Wet Locations"<br>labeled. |

### LUMEN PACKAGE

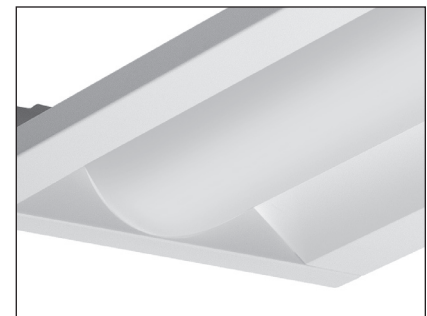
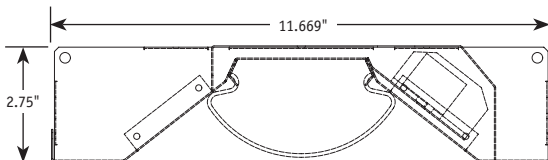
| SERIES | MODULE SIZE | Nominal Lumen Package | Color | Fixture Power (W) | Delivered Lumens | Fixture LPW | IC Rated | Standby Lighting Option |
|--------|-------------|-----------------------|-------|-------------------|------------------|-------------|----------|-------------------------|
| LR402  | 1X4         |                       |       |                   |                  |             |          |                         |
|        |             | 2600                  | 3000K | 24                | 2400             | 102         | ✓        | ✓                       |
|        |             | 2600                  | 3500K | 24                | 2493             | 106         | ✓        | ✓                       |
|        |             | 2600                  | 4000K | 24                | 2626             | 111         | ✓        | ✓                       |
|        |             | 2600                  | 5000K | 24                | 2626             | 111         | ✓        | ✓                       |
|        |             | 3200                  | 3000K | 25                | 3110             | 122         | ✓        | ✓                       |
|        |             | 3200                  | 3500K | 25                | 3110             | 122         | ✓        | ✓                       |
|        |             | 3200                  | 4000K | 25                | 3225             | 127         | ✓        | ✓                       |
|        |             | 3200                  | 5000K | 25                | 3285             | 129         | ✓        | ✓                       |
|        |             | 3700                  | 3000K | 30                | 3530             | 119         | ✓        | ✓                       |
|        |             | 3700                  | 3500K | 30                | 3530             | 119         | ✓        | ✓                       |
|        |             | 3700                  | 4000K | 30                | 3660             | 123         | ✓        | ✓                       |
|        |             | 3700                  | 5000K | 30                | 3730             | 126         | ✓        | ✓                       |
|        |             | 4200                  | 3000K | 35                | 4032             | 115         | ✓        | ✓                       |
|        |             | 4200                  | 3500K | 35                | 4032             | 115         | ✓        | ✓                       |
|        |             | 4200                  | 4000K | 35                | 4185             | 119         | ✓        | ✓                       |
|        |             | 4200                  | 5000K | 35                | 4260             | 121         | ✓        | ✓                       |
|        |             | 4600                  | 3000K | 39                | 4464             | 112         | ✓        | ✓                       |
|        |             | 4600                  | 3500K | 39                | 4464             | 112         | ✓        | ✓                       |
|        |             | 4600                  | 4000K | 39                | 4630             | 117         | ✓        | ✓                       |
|        |             | 4600                  | 5000K | 39                | 4715             | 119         | ✓        | ✓                       |
|        |             | 5700                  | 3000K | 51                | 5485             | 107         | ✓        | ✓                       |
|        |             | 5700                  | 3500K | 51                | 5600             | 110         | ✓        | ✓                       |
|        |             | 5700                  | 4000K | 51                | 5743             | 112         | ✓        | ✓                       |
|        |             | 5700                  | 5000K | 51                | 5770             | 113         | ✓        | ✓                       |
|        |             | 7800                  | 3000K | 75                | 7523             | 100         | ✓        | ✓                       |
|        |             | 7800                  | 3500K | 75                | 7680             | 101         | ✓        | ✓                       |
|        |             | 7800                  | 4000K | 75                | 7877             | 104         | ✓        | ✓                       |
|        |             | 7800                  | 5000K | 75                | 7917             | 105         | ✓        | ✓                       |
|        |             | 11,100                | 3000K | 102               | 10630            | 104         | -        | -                       |
|        |             | 11,100                | 3500K | 102               | 10962            | 107         | -        | -                       |
|        |             | 11,100                | 4000K | 102               | 11184            | 109         | -        | -                       |
|        |             | 11,100                | 5000K | 102               | 11294            | 110         | -        | -                       |

Actual wattage may differ by +/- 5% when operating between 120V-277V +/- 10%.

### PHOTOMETRICS:

All photometric reports are available at [www.merclt.com](http://www.merclt.com).

### CROSS SECTIONS:



Detail

