



# LR405 SERIES

## Architectural Recessed 2X2 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-squared profile design.
- Extruded from custom formulated high transmission acrylic material.
- Linear ribbing for high LED performance.

#### STANDBY LIGHTING OPTION:

- Remote-mount self-contained module, 7W, 10W or 12W as specified.
- Due to shallow depth of luminaire, module will need to be remotely mounted above ceiling line by contractor. Module is wired in and connected to luminaire with armored cable. Some limitations apply, contact factory for more details.
- Battery backup upon loss of power.

#### 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 2X2 ambient LED luminaire featuring a single linear high transmission acrylic diffuser.
- Meets the requirements for Chicago Plenum use.
- Architecturally-squared diffuser envelops 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 119.
- American Made.



# LR405 SERIES

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

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

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

Example: LR405-22G-3400-35K-1%-UNI-EM7R

| SERIES | MODULE SIZE/CEILING   | NOMINAL LUMENS                                       | COLOR TEMP             | DRIVER   | VOLTAGE | STANDBY LIGHTING OPTIONS* | OPTIONS   |
|--------|---|--|------------------------|--|---------|---------------------------|---|
| LR405  | 22G<br>2X2 Module/<br>Nema Type<br>G/Lay-In<br>Grid, 1" or<br>9/16" Fine<br>Line. | 2200   | 30K                    | 1%<br>0-10V, 1%<br>Dimming<br>—<br>As<br>Specified | UNI     | EM7R<br>EM10R<br>EM12R    | FLX   |
|        |   | 2600   | 35K                    |  |         |                           | 6Ft. Single<br>Circuit<br>Power Flex<br>(Specify Voltage) |
|        |   | 3000   | 40K                    |  |         |                           | FLX2  |
|        |   | 3400   | 50K<br>Upon<br>Request |  |         |                           | 6Ft. 2-Circuit<br>Power Flex<br>(Specify Voltage)         |
|        |   | 3800   |                        |  |         |                           | WL  |
|        |   | 4100   |                        |  |         |                           | UL "Suitable for<br>Wet Locations"<br>labeled.            |
|        |   | 5500   |                        |  |         |                           |   |
|        |   | XXXX<br>Custom Lumen<br>Package.<br>Contact Factory. |                        |  |         |                           |   |

## LUMEN PACKAGE

| SERIES | MODULE SIZE | Nominal Lumen Package | Color | Fixture Power (W) | Delivered Lumens | Fixture LPW | IC Rated | Standby Lighting Option |
|--------|-------------|-----------------------|-------|-------------------|------------------|-------------|----------|-------------------------|
| LR405  | 2X2         |                       |       |                   |                  |             |          |                         |
|        |             | 2200                  | 3000K | 19                | 2181             | 112         | ✓        | ✓                       |
|        |             | 2200                  | 3500K | 19                | 2181             | 112         | ✓        | ✓                       |
|        |             | 2200                  | 4000K | 19                | 2265             | 117         | ✓        | ✓                       |
|        |             | 2200                  | 5000K | 19                | 2305             | 119         | ✓        | ✓                       |
|        |             | 2600                  | 3000K | 24                | 2565             | 109         | ✓        | ✓                       |
|        |             | 2600                  | 3500K | 24                | 2618             | 111         | ✓        | ✓                       |
|        |             | 2600                  | 4000K | 24                | 2685             | 114         | ✓        | ✓                       |
|        |             | 2600                  | 5000K | 24                | 2700             | 114         | ✓        | ✓                       |
|        |             | 3000                  | 3000K | 28                | 2918             | 106         | ✓        | ✓                       |
|        |             | 3000                  | 3500K | 28                | 2978             | 108         | ✓        | ✓                       |
|        |             | 3000                  | 4000K | 28                | 3055             | 111         | ✓        | ✓                       |
|        |             | 3000                  | 5000K | 28                | 3070             | 111         | ✓        | ✓                       |
|        |             | 3400                  | 3000K | 32                | 3320             | 103         | ✓        | ✓                       |
|        |             | 3400                  | 3500K | 32                | 3390             | 105         | ✓        | ✓                       |
|        |             | 3400                  | 4000K | 32                | 3475             | 108         | ✓        | ✓                       |
|        |             | 3400                  | 5000K | 32                | 3494             | 108         | ✓        | ✓                       |
|        |             | 3800                  | 3000K | 36                | 3630             | 100         | ✓        | ✓                       |
|        |             | 3800                  | 3500K | 36                | 3707             | 102         | ✓        | ✓                       |
|        |             | 3800                  | 4000K | 36                | 3800             | 105         | ✓        | ✓                       |
|        |             | 3800                  | 5000K | 36                | 3820             | 106         | ✓        | ✓                       |
|        |             | 4100                  | 3000K | 36                | 3980             | 110         | ✓        | ✓                       |
|        |             | 4100                  | 3500K | 36                | 4107             | 113         | ✓        | ✓                       |
|        |             | 4100                  | 4000K | 36                | 4190             | 115         | ✓        | ✓                       |
|        |             | 4100                  | 5000K | 36                | 4231             | 117         | ✓        | ✓                       |
|        |             | 5500                  | 3000K | 51                | 5315             | 104         | ✓        | ✓                       |
|        |             | 5500                  | 3500K | 51                | 5481             | 108         | ✓        | ✓                       |
|        |             | 5500                  | 4000K | 51                | 5592             | 110         | ✓        | ✓                       |
|        |             | 5500                  | 5000K | 51                | 5647             | 111         | ✓        | ✓                       |

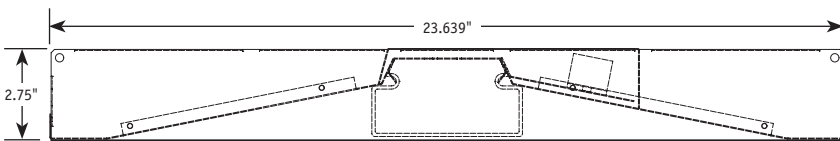
\* All modules to be field mounted, factory wired with armored cable. Contact factory for more details.

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

## PHOTOMETRICS:

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

## CROSS SECTIONS:



Detail

