



RETROFIT SOLUTION LED

RMBL220 (2X2) SERIES

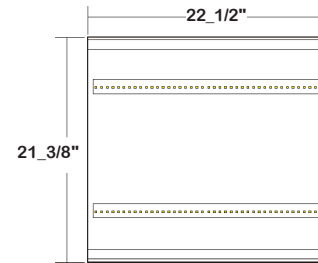
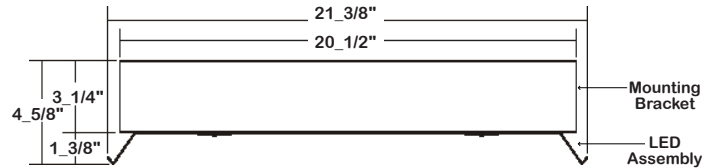
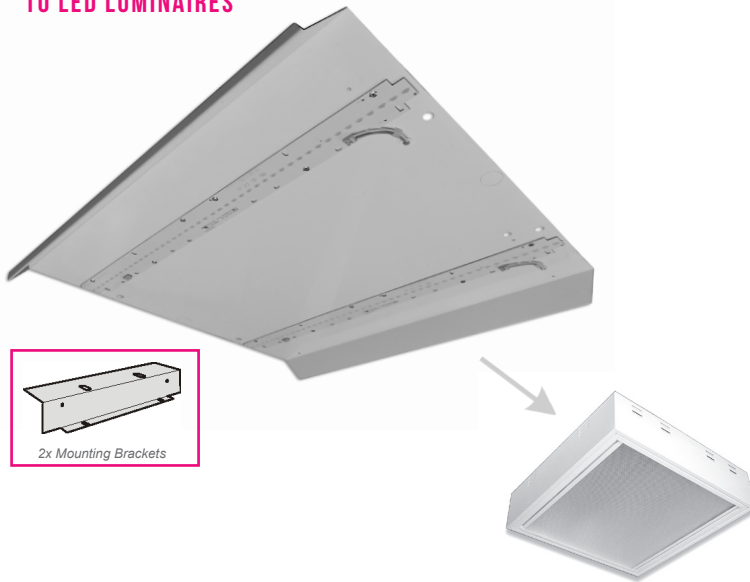
NOMINAL 2X2 HIGH BAY RETROFIT SOLUTION

| | |
|------|--|
| DATE | |
| JOB | |

WWW.LALIGHTING.COM
626-454-8300

EASILY CONVERTS EXISTING NOMINAL 2X2 SURFACE / PENDANT / RECESSED MOUNTED HIGH BAY HID + FLUORESCENT FIXTURES TO LED LUMINAIRES

DIMENSIONS



**Dimensions must be checked against host fixture to ensure the retrofit solution will fit properly. L.A. Lighting has the capability to modify the retrofit solution to fit your fixture.*

FEATURES

- LED retrofit solution for nominal 2x2 surface / pendant / recessed mounted high bay HID + fluorescent luminaires
- **High (HT)** ambient temperature version available for extreme temperature ranges (See *SYSTEM DATA* for ranges)
- 0-10V dimming driver standard (packaged separately) (See *DRIVER OPTIONS* for other dimming types)
- Includes easy-to-read installation instructions (View *INSTALLATION INSTRUCTIONS*)
- Pre-punched holes to install the necessary hardware and wiring
- 2 safety cables pre-installed
- Supports California Title 24 compliance

OPTIONS

- Full customization available upon request
- Additional lumen packages and color temperatures available
- Controls and sensors available (See *SENSOR OPTIONS* for controls and sensors)
- Wireless control options available (See *SENSOR OPTIONS* for wireless controls)
- Emergency battery pack available (See *BATTERY PACK OPTIONS* for battery pack options)
- Painted after fabrication available

SPECIFICATIONS

CONSTRUCTION

- 22 ga. cold rolled steel LED cover tray with 2 mounting brackets
- LED cover tray to be secured to the 2 mounting brackets
- 2 mounting brackets to be secured to host fixture with provided screws

FINISH

- Baked white polyester finish / minimum reflectance 86%

ELECTRICAL

- High efficiency drivers coupled with long-life LEDs
- Service life greater than 50,000 hours (L70)
- Universal voltage 120V through 277V (347V / 480V available)
- LED light engine is pre-wired with a quick connector for easy connection
- Driver-disconnect is provided for disconnecting the electrical supply conductors to the LED driver
- Power Factor (PF) ≥ 0.9
- Total Harmonic Distortion (THD) $\leq 20\%$

LISTING

- UL USA and Canada listed

WARRANTY

- 5-year limited warranty



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Made in the USA

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MADE IN THE U.S.A.

Revised 02-19-19

WARNING

ORDERING INFORMATION

EXAMPLE: RMBL220-16-2L-DRDM-UNV-2/850HT

| RETROFIT SERIES | LED LUMEN PACKAGE | NOMINAL LENGTH | MECHANICAL | ELECTRICAL | DRIVER | VOLTAGE | # OF LED ROW | CRI / CCT | AMBIENT TEMP. |
|---|--|----------------------|--|--|--|--|--|---|---------------------------------|
| RMBL220 | | 2L | | | DRDM | UNV | | | HT |
| RMBL220 High Bay Fluorescent MBL220 Fixture to LED Luminaire Retrofit Solution (HT - High Ambient Temperature Version) | 12 Nom. 12000 Lumens 16 Nom. 16000 Lumens 20 Nom. 20000 Lumens *Additional Lumen Packages Available | 2L 2' x 2' | PAF Painted After Fabrication *Leave Blank if Not Specified | BPL10 Emergency Battery Pack, Constant 10W Nom. 1500 lm See <u>BATTERY PACK OPTIONS for Options</u> MSHxx Motion Sensor High Frequency WLC(LED RU) EnOcean Wireless Control See <u>SENSOR OPTIONS for Options</u> *Leave Blank if Not Specified <u>Additional Electrical Options</u> | DRDM 0-10V Dimming Driver See <u>DRIVER OPTIONS for Options</u> | UNV 120V-277V See <u>DRIVER OPTIONS for Options</u> | 2 Two LED Rows (Only 12000 / 16000 lumens Systems) 4 Four LED Rows (Only 20000 lumens System) | 840 80+CRI / 4000K Color Temp. 850 80+CRI / 5000K Color Temp. *Additional Color Temp. Available | HT High Ambient Temp. |

SYSTEM DATA

THESE ARE THE MOST POPULAR LUMEN PACKAGES. PLEASE CONSULT FACTORY FOR ADDITIONAL SYSTEM DATA.

| LED LUMEN PACKAGE | HIGH AMBIENT TEMPERATURE PRODUCT CODE | DELIVERED LUMENS* | SYSTEM WATTS | LUMINAIRE EFFICACY | AMBIENT TEMP. | FLUORESCENT / HID EQUIVALENT | IES FILES |
|------------------------|---------------------------------------|-------------------|--------------|--------------------|---|------------------------------|----------------------------|
| 12000 Lumens (Nominal) | RMBL220-12-4L-DRDM-UNV-2/840HT | 9794 lm | 76.1 W | 128.6 lm/W | -30°C / 45°C (with Door) -30°C / 50°C (without Door) | 3-BX55, 175W (MH) | * |
| 16000 Lumens (Nominal) | RMBL220-16-4L-DRDM-UNV-2/840HT | 12886 lm | 103.3 W | 124.7 lm/W | -30°C / 45°C (with Door) -30°C / 50°C (without Door) | 4-BX55, 400W (MH) | LA-T3146-4 |
| 20000 Lumens (Nominal) | RMBL220-20-4L-DRDM-UNV-4/840HT | 16412 lm | 130.9 W | 125.4 lm/W | -30°C / 45°C (with Door) -30°C / 50°C (without Door) | 750W (MH) | * |

NOTE:
System data is based on 120V input voltage. Actual performance may differ as a result of end-user environment and application.

* As tested in a host fixture with a clear prismatic acrylic lens

This fixture has been tested and listed in accordance with UL Standards. L.A. Lighting certifies that it will operate safely when installed properly, and within an ambient temperature range noted in the system data table.

Additional lumen packages and color temperatures available.

PERFORMANCE DATA

[VIEW PHOTOMETRICS](#)



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SENSOR OPTIONS

HIGH FREQUENCY - INTERNAL FIXTURE MOUNT

- MSHPC - Motion Sensor High Frequency (Microwave) with Photocell Option**
- Super high frequency motion sensor (also known as microwave sensor) which detects movement when installed behind low density fixture materials, such as polycarbonate, acrylic and glass diffusers
 - Holds lights OFF when sufficient daylight is present regardless of motion detection
 - Fixture is 100% on when it detects motion and will turn off after time delay
 - Selectable sensitivity and detection area
 - Fixture mounting height ~30'
 - Universal Voltage (120V-277V)
 - Photocell is disabled by default

- MSH - Motion Sensor High Frequency (Microwave)**
- Super high frequency motion sensor (also known as microwave sensor) which detects movement when installed behind low density fixture materials, such as polycarbonate, acrylic and glass diffusers
 - Turns light ON/OFF based on motion detection
 - Fixture mounting height ~30'
 - Universal Voltage (120V-277V)



CONTROLS AND SENSORS

- WLC(LED RU) - EnOcean® LED Relay Zone Controller**
- Supports a single LED fixture or multiple daisy chained LED fixtures
 - Module installed inside lighting fixture

- ESRPU-W-EO - EnOcean® Rocker Switch – Single – Surface Mount**
- Wireless single rocker switch with mounting plate
 - No batteries needed

- EDRPU-W-EO - EnOcean® Rocker Switch – Double – Surface Mount**
- Wireless double rocker switch with mounting plate
 - No batteries needed

- S3054-N300 - EnOcean® Navigan NWC 300U – Commissioning Tool**
- Navigan Wireless Commissioner is used to configure EnOcean controllers & sensors
 - It can be used to define link tables, change parameters/settings, and to edit & store projects
 - Configuration settings can be saved and cloned to enable quick configuration
 - Connectivity is through the NWC 300U USB Stick

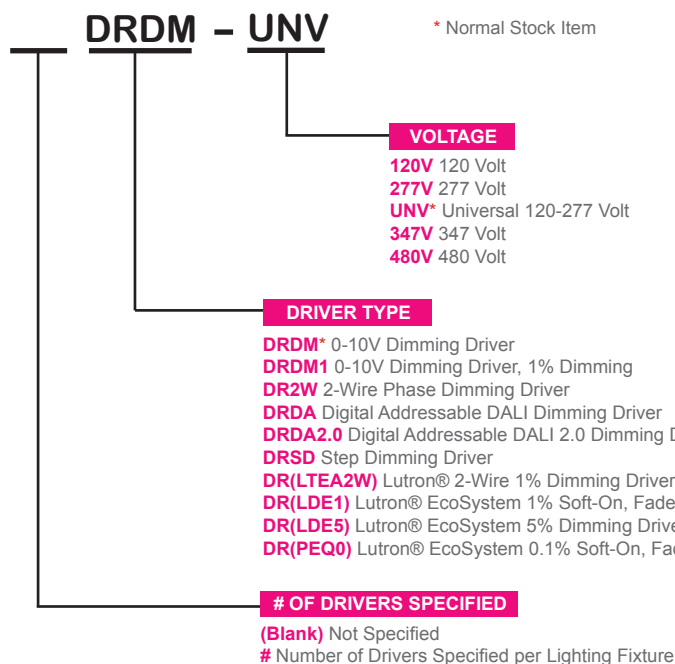
- EOSWU-W-EO - EnOcean® Occupancy Sensor – Wall Mount**
- Wireless wall mounted occupancy sensor
 - Solar powered - no batteries needed (coin battery operated in low light conditions)
 - PIR motion sensor with both wide angle (50') and long range (100') options
 - Mounting height: 6-8 feet

- EOSCU-W-EO - EnOcean® Occupancy Sensor – Ceiling Mount**
- Wireless ceiling mounted occupancy sensor
 - Solar powered - no batteries needed (coin battery operated in low light conditions)
 - PIR motion sensor with 360 degree viewing angle lens (34' diameter)
 - Mounting height: 7-10 feet

- ELLSU-W-EO - EnOcean® Light Level Sensor – Ceiling Mount**
- Light Level sensor that measures and reports the level of available natural light
 - Solar powered - no batteries needed (coin battery operated in low light conditions)
 - Enables implementation of daylight harvesting control systems
 - Mounting position: At the ceiling, close to ambient light source

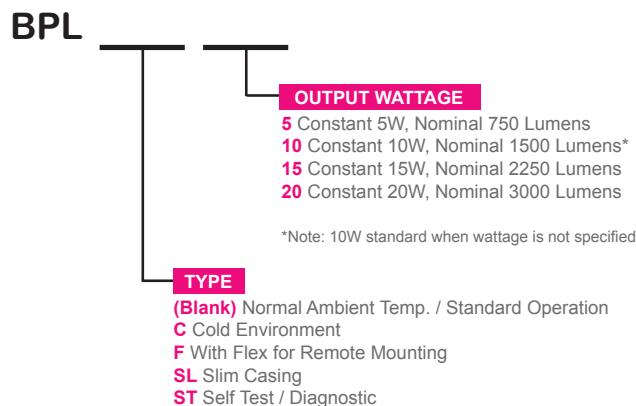
DRIVER OPTIONS

PLEASE CONSULT FACTORY TO SEE IF YOUR SELECTED DRIVER OPTION WORKS WITH THIS FIXTURE.



BATTERY PACK OPTIONS

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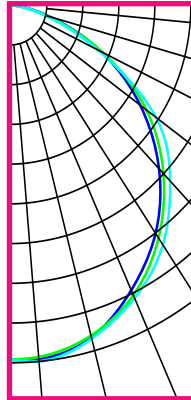
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PHOTOMETRIC DATA - RMBL220 SERIES

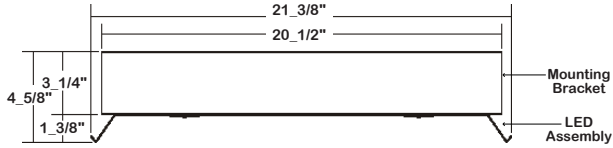
RMBL220-16-2L-DRDM-UNV-2/850HT

TEST NO.=LA-T3146-4
 HOST FIXTURE=MBL220 with Clear Prismatic Acrylic Lens
 LED TYPE=144 LED MODULE
 NO. OF MODULE=2
 SYSTEM WATT (W)=103.3
 CRI ≥ 80
 L70(Hrs.) ≥ 50,000
 PHOTOMETRY TYPE=C



| CANDLEPOWER | | | |
|-------------|------|------|-------|
| ANGLE | END | 45 | CROSS |
| 0 | 6820 | 6820 | 6820 |
| 5 | 6733 | 6748 | 6780 |
| 15 | 6648 | 6696 | 6726 |
| 25 | 6198 | 6283 | 6357 |
| 35 | 4978 | 5062 | 5129 |
| 45 | 3080 | 3039 | 2964 |
| 55 | 1402 | 1381 | 1359 |
| 65 | 514 | 506 | 502 |
| 75 | 145 | 145 | 140 |
| 85 | 21 | 22 | 22 |
| 90 | 1 | 1 | 1 |
| 95 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 |

| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|--------|-----------|
| DEGREES | LUMENS | % LAMP | % FIXTURE |
| 0-30 | 5449 | 31.8 | 42.2 |
| 0-40 | 8626 | 50.7 | 66.9 |
| 0-60 | 12213 | 71.4 | 94.7 |
| 0-90 | 12886 | 75.4 | 100.0 |
| 90-120 | 0.3 | 0.0 | 0.0 |
| 90-150 | 0.3 | 0.0 | 0.0 |
| 90-180 | 0.3 | 0.0 | 0.0 |
| 0-180 | 12886 | 75.4 | 100.00 |



Luminaire Output = 12886 lumens
 Luminaire Efficacy = 124.7 lm/W

| SPACING CRITERION | |
|-------------------|--------|
| ALONG | ACROSS |
| 1.20 | 1.23 |

