

Contact/Phone:

# MINI LED DOWNLIGHT

| Location:     | LOW VOLTAGE                              |
|---------------|--|
| Fixture Type: | MD1LG2 (RD,WL) RECESSED HOUSING AND TRIM |
| Project:      | OUTDOOR/WET LOCATION                     |

#### PRODUCT DESCRIPTION

The round MD1LG2 (WL) mini LED recessed downlight is for use in wet locations and is IC rated for insulated or non-insulated applications • Sleek, compact form factor provides direct accent lighting with low glare optic system that approximates the light output and distribution of 20W halogen lamps • Ideal for both residential and commercial wet location applications including bathrooms and eave lighting • Remote mount Class 2 120V to 12V AC electronic or magnetic transformer required • Designed to provide 50,000 hours of life • 5 year limited warranty on LED components.

# ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- No harmful ultraviolet or infrared wavelengths
- No lead or mercury
- Comparable light output to 20W MR11 halogen lamps while consuming 5W

#### **PRODUCT SPECIFICATIONS**

**LED Light Engine** High performance, low power LEDs provide outstanding reliability, performance and color quality/consistency • 2700K, 3000K, 3500K or 4000K color temperatures available • 80 or 90 CRI minimum.

**Optical System** Fixtures are offered with a choice of spot, narrow flood or flood beam patterns • LED source concealed with lensed optic is deeply regressed into an internal reflector to produce a low glare system • Reflectors finished to match trim ring color for uniform appearance • Field replacement of optical lenses is NOT recommended.

**Transformer** Requires remote mount Class 2, 120V to 12V AC electronic or magnetic transformer for operation • Juno <u>TL602E</u> electronic transformer and <u>MAGXFMR</u> magnetic transformer are designed specifically for use with these fixtures.

**Dimming** May be dimmed with dimmers tested and qualified by Juno for use with <u>TL602E</u> and <u>MAGXFMR</u> – see transformer specifications for compatible dimmers • Color temperature remains constant over dimming range • Consult factory for additional information.

Life Rated for 50,000 hours at 70% lumen maintenance.

Labels UL Listed for wet locations and daisy chaining • Union made • UL and cUL listed • RoHS compliant.

**Testing** All reports are based on published industry procedures; field performance may differ from laboratory performance. Specifications subject to change without notice.

## **HOUSING FEATURES**

Housing Designed for use in IC (insulated ceiling) or non-IC construction

• Die cast aluminum housing • Finished with either corrosion resistant painted finishes or E-coat for decorative plated finishes.

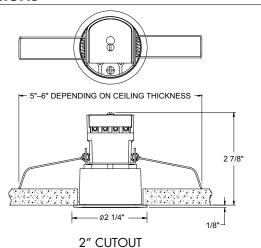
Wiring Compartment Provided with removable access plate • Four pole terminal block allows for quick, secure connection • UL /cUL listed for daisy chaining • Easy to wire with commonly available low voltage cable (Type CL2 or NEC equivalent, 18-12 AWG). Consult local codes for compliant wiring methods.

**Mounting** Zinc plated torsion clips are provided fully assembled to housing • Springs allow for fast, secure installation or removal in mounting surfaces from 1/8" to 1" thick material • 2" Cutout dimension corresponds to common hole saw size.





#### **DIMENSIONS**



# **TRANSFORMERS**

| Catalog Number                    | Finish | Description                       |
|-----------------------------------|--------|-----------------------------------|
| TL602E 10W 120 12AC WH            | White  | 10W 12V AC Electronic Transformer |
| TL602E 25W 120 12AC WH            | White  | 25W 12V AC Electronic Transformer |
| TL602E 60W 120 12AC WH            | White  | 60W 12V AC Electronic Transformer |
| MAGXFMR 1C 10W 120 12AC BL        | Black  | 10W 12V AC Magnetic Transformer   |
| MAGXFMR 1C 25W 120 12AC BL        | Black  | 25W 12V AC Magnetic Transformer   |
| MAGXFMR 1C 60W 120 12AC BL        | Black  | 60W 12V AC Magnetic Transformer   |
| To order, specify catalog number. |        |                                   |

# **ELECTRICAL DATA**

| Input Voltage | 12VAC                   |
|---------------|-------------------------|
| Input Power   | 4.8W                    |
| Input Current | 0.42A                   |
| Frequency     | Varies with Transformer |

#### **ORDERING INFORMATION**

Example: MD1LG2 RD O3LM 27K 80CRI FL WL WH

| Example. MD1102 | Administration in the Control of the |                                |                   |                      |                  |                 |                 |
|-----------------|--|--------------------------------|-------------------|----------------------|------------------|-----------------|-----------------|
|                 |  |                                |                   |                      |                  |                 |                 |
| Series          | Fixture Form   | Lumens                         | Color Temperature | CRI                  | Distribution     | Environment     | Trim Finish     |
| MD1LG2          | RD Round   | <b>03LM</b> 300 Nominal Lumens | <b>27K</b> 2700K  | <b>80CRI</b> 80+ CRI | <b>FL</b> Flood  | WL Wet Location | <b>BL</b> Black |
|                 |  |                                | <b>30K</b> 3000K  | <b>90CRI</b> 90+ CRI | NFL Narrow Flood |                 | BRZ Bronze      |
|                 |  |                                | <b>35K</b> 3500K  |                      | SP Spot          |                 | SN Satin Nickel |
|                 |  |                                | <b>40K</b> 4000K  |                      |                  |                 | WH White        |

# MINI LED DOWNLIGHT

OUTDOOR/WET LOCATION MD1LG2 (RD,WL) RECESSED HOUSING AND TRIM

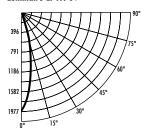
# **LOW VOLTAGE**

#### **PHOTOMETRICS**

## PHOTOMETRIC REPORT

Test Report #: PT10130702R Catalog No: MD1LG2 RD 03LM 35K 80CRI SP WL WH

Luminaire Spacing Criterion: 0.34 Luminaire LPW: 64



#### CANDLEPOWER DISTRIBUTION (Candelas)

| Degrees     | i     |       |
|-------------|-------|-------|
| Vertical    |       | 0°    |
| 0           |       | 1977  |
| 5           |       | 1648  |
| 15          |       | 421   |
| 25          |       | 80    |
| 35          |       | 17    |
| 45          |       | 6     |
| 55          |       | 3     |
| 65          |       | 1     |
| 75          |       | 1     |
| 85          |       | 0     |
| 90          |       | 0     |
| Multiplier: | 80CRI | 90CRI |

## **AVERAGE INITIAL FOOTCANDLES**

| Multiple Units (Square Array, 60' x 60' room) |                                  |      |      |  |  |
|---|----------------------------------|------|------|--|--|
| Ceiling 80                                    | Ceiling 80%, Wall 50%, Floor 20% |      |      |  |  |
| Spacing                                       | RCR1                             | RCR4 | RCR8 |  |  |
| 4′  | 23                               | 21   | 19   |  |  |
| 5′  | 14                               | 13   | 12   |  |  |
| 6′  | 10                               | 9    | 9    |  |  |
| 7′  | 8                                | 7    | 7    |  |  |
| 8′  | 6                                | 6    | 5    |  |  |
| 9′  | 5                                | 4    | 4    |  |  |
| 10′   | 4                                | 3    | 3    |  |  |

# **INITIAL FOOTCANDLES**

| One Unit, 5W, 19.4° Beam                |                            |                  |  |
|---|----------------------------|------------------|--|
| Distance to Illuminated<br>Plane (Feet) | Footcandles<br>Beam Center | Beam<br>Diameter |  |
| 4                                       | 123.6                      | 1.4′             |  |
| 6                                       | 54.9                       | 2.1′             |  |
| 8                                       | 30.9                       | 2.7′             |  |
| 10                                      | 19.8                       | 3.4'             |  |

### **70NALILIMEN SUMMARY**

| ZONAL LOMEN SOMMAN |        |       |          |  |  |
|--------------------|--------|-------|----------|--|--|
| Zone               | Lumens | %Lamp | %Fixture |  |  |
| 0-30°              | 297    | N/A   | 93.3     |  |  |
| 0 - 40°            | 309    | N/A   | 96.9     |  |  |
| 0-60°              | 316    | N/A   | 99.2     |  |  |
| 0 - 90°            | 319    | N/A   | 100.0    |  |  |

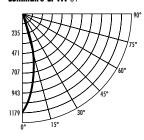
### LUMINANCE (Average cd/m²)

| Degrees | Average 0°<br>Luminance |
|---------|-------------------------|
| 45      | 12095                   |
| 55      | 6710                    |
| 65      | 4720                    |
| 75      | 4407                    |
| 85      | 1634                    |
|         |                         |

#### PHOTOMETRIC REPORT

Test Report #: PT10130703R Catalog No: MD1LG2 RD 03LM 35K 80CRI NFL WL WH

Luminaire Spacing Criterion: 0.42 Luminaire LPW: 61



# CANDLEPOWER DISTRIBUTION

lier: 80CRI 90CRI 27K - 0.91 27K - 0.67 30K - 0.95 30K - 0.72 35K - 1.00 35K - 0.77 40K - 1.01 40K - 0.80

# AVERAGE INITIAL FOOTCANDLES Multiple Units (Square Array, 60' x 60' room)

| Ceiling 80%, VVall 50%, Floor 20% |      |      |      |  |
|-----------------------------------|------|------|------|--|
| Spacing                           | RCR1 | RCR4 | RCR8 |  |
| 4′                                | 21   | 19   | 17   |  |
| 5′                                | 14   | 12   | 11   |  |
| 6′                                | 9    | 9    | 8    |  |
| 7′                                | 8    | 7    | 6    |  |
| 8′                                | 6    | 5    | 5    |  |
| 9′                                | 5    | 4    | 4    |  |
| 10'                               | 3    | 3    | 3    |  |
|                                   |      |      |      |  |

## **INITIAL FOOTCANDLES**

One Unit, 5W, 24.6° Beam

| Distance to Illuminated<br>Plane (Feet) |      | Beam<br>Diameter |
|---|------|------------------|
| 4                                       | 73.7 | 1.7′             |
| 6                                       | 32.8 | 2.6′             |
| 8                                       | 18.4 | 3.5′             |
| 10                                      | 11.8 | 4.4'             |

#### **70NALLUMEN SUMMARY**

| ZONAL LUMEN SUMMAKT |        |       |          |  |  |
|---------------------|--------|-------|----------|--|--|
| Zone                | Lumens | %Lamp | %Fixture |  |  |
| 0-30°               | 270    | N/A   | 88.9     |  |  |
| 0 - 40°             | 290    | N/A   | 95.5     |  |  |
| 0-60°               | 300    | N/A   | 98.9     |  |  |
| 0 - 90°             | 304    | N/A   | 100.0    |  |  |

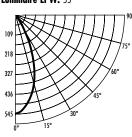
# LUMINANCE (Average cd/m²)

| Degrees | Average 0°<br>Luminance |
|---------|-------------------------|
| 45      | 17336                   |
| 55      | 7952                    |
| 65      | 6071                    |
| 75      | 5507                    |
| 85      | 3268                    |
|         |                         |

#### PHOTOMETRIC REPORT

Test Report #: PT10130704R Catalog No: MD1LG2 RD 03LM 35K 80CRI FL WL WH

Luminaire Spacing Criterion: 0.64 Luminaire LPW: 55



# CANDLEPOWER DISTRIBUTION

90 0 Multiplier: 80CRI 90CRI 27K - 0.91 27K - 0.67 30K - 0.95 30K - 0.72 35K - 1.00 35K - 0.77 40K - 1.01 40K - 0.80

# **AVERAGE INITIAL FOOTCANDLES**

Multiple Units (Square Array, 60' x 60' room)

| Ceiling 80%, Wall 50%, Floor 20% |         |      |      |      |
|----------------------------------|---------|------|------|------|
|                                  | Spacing | RCR1 | RCR4 | RCR8 |
|                                  | 4'      | 19   | 17   | 15   |
|                                  | 5′      | 12   | 11   | 10   |
|                                  | 6′      | 8    | 7    | 7    |
|                                  | 7′      | 7    | 6    | 5    |
|                                  | 8′      | 5    | 5    | 4    |
|                                  | 9′      | 4    | 4    | 3    |
|                                  | 10'     | 3    | 3    | 2    |

# ZONAL LUMEN SUMMARY

| TOTAL LONGERT SOM |         |        |       | WAIL I   |  |
|-------------------|---------|--------|-------|----------|--|
|                   | Zone    | Lumens | %Lamp | %Fixture |  |
|                   | 0 - 30° | 221    | N/A   | 81.2     |  |
|                   | 0 - 40° | 251    | N/A   | 91.9     |  |
|                   | 0 - 60° | 267    | N/A   | 98.0     |  |
|                   | 0 - 90° | 273    | N/A   | 100.0    |  |

# **INITIAL FOOTCANDLES**

One Unit, 5W, 38.3° Bea

|                         | One Oni, 344, 36.3 Deam |             |          |
|-------------------------|-------------------------|-------------|----------|
| Distance to Illuminated |                         |             | Beam     |
|                         | Plane (Feet)            | Beam Center | Diameter |
|                         | 4                       | 34.1        | 2.8′     |
|                         | 6                       | 15.1        | 4.2'     |
|                         | 8                       | 8.5         | 5.6′     |
|                         | 10                      | 5.5         | 6.9'     |

# LUMINANCE (Average cd/m²)

| Degrees | Average 0°<br>Luminance |
|---------|-------------------------|
| 45      | 26205                   |
| 55      | 13917                   |
| 65      | 10455                   |
| 75      | 9364                    |
| 85      | 4902                    |
|         |                         |

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit at 12VAC in a 25°C ambient represents a baseline of performance for the fixture. Results may vary in the field and when multiple fixtures are used in a system.