



SQUARE MINI LED DOWNLIGHT

MD1LG2 (SQ) RECESSED HOUSING AND TRIM

LOW VOLTAGE

Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

PRODUCT DESCRIPTION

The square MD1LG2 (SQ) mini LED recessed downlight 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 limited space applications including niches, bookshelves, displays and cabinets • 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 [TL602E](#) electronic transformer and [MAGXFMR](#) magnetic transformer are designed specifically for use with these fixtures.

Dimming May be dimmed with dimmers tested and qualified by Juno for use with [TL602E](#) and [MAGXFMR](#) – 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 indoor damp 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.

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.

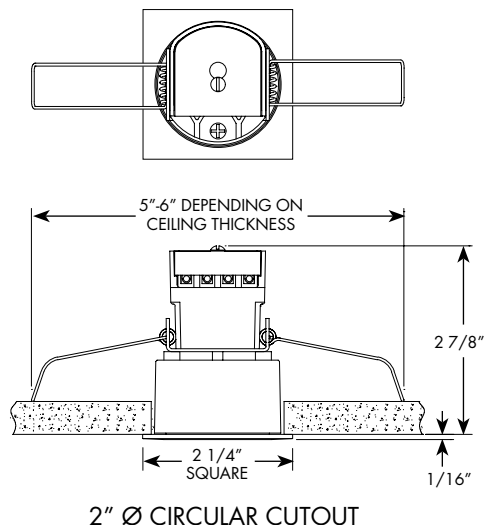
Mounting Tempered spring steel torsion clips are provided fully assembled to housing • Springs allow for fast, secure installation or removal in mounting surfaces from 1/8" to 1" thick material • 2" Cutout dimension corresponds to common hole saw size.

ELECTRICAL DATA

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



DIMENSIONS



ORDERING INFORMATION

Example: MD1LG2 SQ 03LM 27K 80CRI FL WH

| Series | Fixture Form | Lumens | Color Temperature |
|--------|--------------|-------------------------|-------------------|
| MD1LG2 | SQ Square | 03LM 300 Nominal Lumens | 27K 2700K |
| | | | 30K 3000K |
| | | | 35K 3500K |
| | | | 40K 4000K |

| CRI | Distribution | Trim Finish |
|---------------|------------------|-----------------|
| 80CRI 80+ CRI | FL Flood | BL Black |
| 90CRI 90+ CRI | NFL Narrow Flood | BRZ Bronze |
| | SP Spot | SN Satin Nickel |
| | | WH White |

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.

SQUARE MINI LED DOWNLIGHT

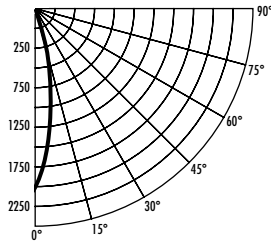
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LOW VOLTAGE

PHOTOMETRICS

PHOTOMETRIC REPORT

Test Report #: PT02140501R
Catalog No: MD1LG2 SQ 03LM 80CRI
35K SP WH
Luminaire Spacing Criterion: 0.34
Luminaire LPW: 67



CANDLEPOWER DISTRIBUTION (Candelas)

| Degrees Vertical | 0° |
|------------------|------|
| 0 | 2061 |
| 5 | 1701 |
| 15 | 437 |
| 25 | 67 |
| 35 | 13 |
| 45 | 5 |
| 55 | 2 |
| 65 | 1 |
| 75 | 0 |
| 85 | 0 |
| 90 | 0 |

Multiplier: 80CRI 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' | 23 | 21 | 19 |
| 5' | 15 | 13 | 12 |
| 6' | 10 | 9 | 9 |
| 7' | 8 | 8 | 7 |
| 8' | 7 | 6 | 6 |
| 9' | 5 | 5 | 4 |
| 10' | 4 | 3 | 3 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixture |
|---------|--------|-------|----------|
| 0 - 30° | 305 | N/A | 94.3 |
| 0 - 40° | 315 | N/A | 97.3 |
| 0 - 60° | 321 | N/A | 99.3 |
| 0 - 90° | 324 | N/A | 100.0 |

INITIAL FOOTCANDLES

One Unit, 5W, 19.6° Beam

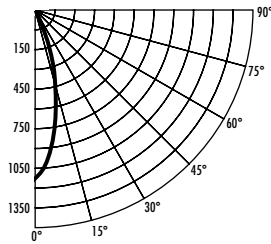
| Distance to Illuminated Plane (Feet) | Footcandles Beam Center | Beam Diameter |
|--------------------------------------|-------------------------|---------------|
| 4 | 128.8 | 1.4' |
| 6 | 57.3 | 2.1' |
| 8 | 32.2 | 2.8' |
| 10 | 20.6 | 3.5' |

LUMINANCE (Average cd/m²)

| Degrees | Average 0° Luminance |
|---------|----------------------|
| 45 | 11169 |
| 55 | 7031 |
| 65 | 5169 |
| 75 | 4544 |
| 85 | 1928 |

PHOTOMETRIC REPORT

Test Report #: PT02140502R
Catalog No: MD1LG2 SQ 03LM 80CRI
35K NFL WH
Luminaire Spacing Criterion: 0.44
Luminaire LPW: 63



CANDLEPOWER DISTRIBUTION (Candelas)

| Degrees Vertical | 0° |
|------------------|------|
| 0 | 1128 |
| 5 | 999 |
| 15 | 441 |
| 25 | 122 |
| 35 | 29 |
| 45 | 8 |
| 55 | 4 |
| 65 | 2 |
| 75 | 1 |
| 85 | 0 |
| 90 | 0 |

Multiplier: 80CRI 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' | 23 | 20 | 18 |
| 5' | 14 | 13 | 12 |
| 6' | 10 | 9 | 8 |
| 7' | 8 | 7 | 7 |
| 8' | 6 | 6 | 5 |
| 9' | 5 | 4 | 4 |
| 10' | 4 | 3 | 3 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixture |
|---------|--------|-------|----------|
| 0 - 30° | 269 | N/A | 88.3 |
| 0 - 40° | 289 | N/A | 94.9 |
| 0 - 60° | 300 | N/A | 98.7 |
| 0 - 90° | 304 | N/A | 100.0 |

INITIAL FOOTCANDLES

One Unit, 5W, 24.9° Beam

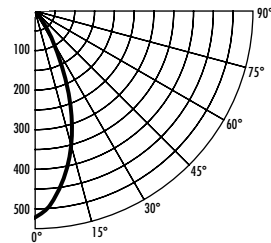
| Distance to Illuminated Plane (Feet) | Footcandles Beam Center | Beam Diameter |
|--------------------------------------|-------------------------|---------------|
| 4 | 70.5 | 1.8' |
| 6 | 31.3 | 2.6' |
| 8 | 17.6 | 3.5' |
| 10 | 11.3 | 4.4' |

LUMINANCE (Average cd/m²)

| Degrees | Average 0° Luminance |
|---------|----------------------|
| 45 | 19723 |
| 55 | 12304 |
| 65 | 9542 |
| 75 | 8440 |
| 85 | 1928 |

PHOTOMETRIC REPORT

Test Report #: PT02140503R
Catalog No: MD1LG2 SQ 03LM 80CRI
35K FL WH
Luminaire Spacing Criterion: 0.62
Luminaire LPW: 55



CANDLEPOWER DISTRIBUTION (Candelas)

| Degrees Vertical | 0° |
|------------------|-----|
| 0 | 533 |
| 5 | 519 |
| 15 | 355 |
| 25 | 135 |
| 35 | 39 |
| 45 | 13 |
| 55 | 7 |
| 65 | 4 |
| 75 | 2 |
| 85 | 0 |
| 90 | 0 |

Multiplier: 80CRI 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' | 18 | 16 | 14 |
| 5' | 12 | 10 | 9 |
| 6' | 8 | 7 | 6 |
| 7' | 7 | 6 | 5 |
| 8' | 5 | 5 | 4 |
| 9' | 4 | 4 | 3 |
| 10' | 3 | 3 | 2 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixture |
|---------|--------|-------|----------|
| 0 - 30° | 213 | N/A | 79.8 |
| 0 - 40° | 241 | N/A | 90.3 |
| 0 - 60° | 259 | N/A | 97.4 |
| 0 - 90° | 266 | N/A | 100.0 |

INITIAL FOOTCANDLES

One Unit, 5W, 37.1° Beam

| Distance to Illuminated Plane (Feet) | Footcandles Beam Center | Beam Diameter |
|--------------------------------------|-------------------------|---------------|
| 4 | 33.3 | 2.7' |
| 6 | 14.8 | 4.0' |
| 8 | 8.3 | 5.4' |
| 10 | 5.3 | 6.7' |

LUMINANCE (Average cd/m²)

| Degrees | Average 0° Luminance |
|---------|----------------------|
| 45 | 31367 |
| 55 | 21678 |
| 65 | 17096 |
| 75 | 12984 |
| 85 | 3856 |

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.