

JUNO®

Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

6" TC 900 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

TC22LED (G4 09LM) RECESSED HOUSING



OPEN TRIMS

PRODUCT DESCRIPTION

Dedicated LED new construction housing with integral light engine • Shallow housing allows for fit in 2 x 6 construction • TC housing design for use in non-insulated areas • If installed where insulation is present, the insulation must be pulled back 3" from all sides of the TC housing • LED housing is designed to provide 50,000 hours of life and is compatible with many standard Juno trims • 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 26W compact fluorescent while consuming only 18W*

PRODUCT SPECIFICATIONS

LED Light Engine LED array integrated to one piece high purity aluminum, thermally conductive housing provides uninterrupted heat transfer to ensure long life of the LED • Replaceable light engine mounts directly to housing and incorporates the latest generation, high lumen output LED array • LEDs are binned within a 3-Step MacAdam Ellipse • 2700K, 3000K, 3500K or 4000K color temperatures available • 90 CRI minimum.

Optical System Computer-optimized reflector design with high reflectance white finish coupled with a high transmission diffusing lens conceals the LEDs and produces uniform aperture luminance • Deep regression of lens produces a low glare, efficient system that can produce over 900 lumens with select trims using less than 17W* • Wide flood (>70°) distribution shipped as standard with optional optic accessories available and sold separately.

Aesthetic Trim Selections Compatible with wide selection of existing Juno trims • Shadow free, knife edge design blends seamlessly into ceiling.

LED Driver Universal voltage drivers that accommodate input voltage from 120-277 volts AC at 50/60Hz are available and dimmable with the use of most 0-10V dimmers • Power factor > 0.9 at 120V input • Optional Lutron Hi-Lume® A-Series driver accommodates 120-277 volts AC at 50/60Hz • Mounted between the j-box and housing for easy access and cool operation • For a list of compatible dimmers, see [JUNOTCLED-DIM](#).

Emergency Battery Option Battery factory assembled to housing with remote mounted test switch included • Drives LED array for 90 minutes to meet Life Safety Code (NFPA-LSC), National Electrical Code (NEC) and UL requirements • Provides 50% light output in emergency mode.

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

Labels UL listed for U.S. and Canada through-branch wiring, damp locations • Union made • UL and cUL listed.

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 TC applications (non-insulated) • Aluminum housing • Housing is vertically adjustable to accommodate up to a 2" ceiling thickness.

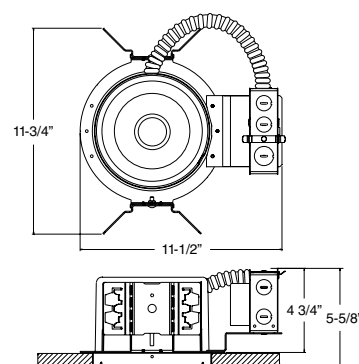
Junction Box Pre-wired junction box provided with (5) 1/2" and (1) 3/4" knockouts and ground wire, UL listed and cUL listed for through-branch wiring, maximum 8 No. 12 AWG 90° C branch circuit conductors (4 in, 4 out) • Junction box provided with removable access plates • Knockouts equipped with pryout slots.

Mounting Frame 16-gauge galvanized steel mounting ring equipped with vertically adjustable mounting brackets that accept 1/2" conduit or "C" channels (HB26 or HB50), linear flat bars (LB27) or Patented (US Patent D552,969) Real Nail® 3 bar hangers (HB1).

*Nominal input wattage with universal voltage driver under stable operating conditions



DIMENSIONS



6 7/8" CEILING CUTOUT

ELECTRICAL DATA

STANDARD UNIVERSAL VOLTAGE DRIVER (MVOLT EZ10, MVOLT ZT10, MVOLT EZ1 and MVOLT ZT1)

| | 120V | 277V |
|-----------------------|--|--|
| Input Power | 16.1W (+/-5%) | 16.9W (+/-5%) |
| Input Current - Max | 0.14A | 0.06A |
| Frequency | 50/60Hz | 50/60Hz |
| EMI/RFI | FCC Title 47 CFR, Part 15, Class B (residential) | FCC Title 47 CFR, Part 15, Class B (residential) |
| Minimum starting temp | -20°C (-40°F) | -20°C (-40°F) |

UNIVERSAL VOLTAGE DRIVER WITH EMERGENCY OPTION (MVOLT ZT10 BR, EZ10 BR, ZT1 BR and EZ1 BR)

| | 120V | 277V |
|-----------------------|---|---|
| Input Power | 18.9W (+/-5%) | 19.6W (+/-5%) |
| Input Current - Max | 0.16A | 0.07A |
| Frequency | 50/60Hz | 50/60Hz |
| EMI/RFI | FCC Title 47 CFR, Part 15, Class A (Commercial) | FCC Title 47 CFR, Part 15, Class A (Commercial) |
| Minimum starting temp | 0°C (32°F) | 0°C (32°F) |

LUTRON HI-LUME® LED DRIVER (ECOD)

| | 120V | 277V |
|-----------------------|---|---|
| Input Power | 17.8W (+/-5%) | 17.8W (+/-5%) |
| Input Current - Max | 0.15A | 0.06A |
| Frequency | 50/60Hz | 50/60Hz |
| EMI/RFI | FCC Title 47 CFR, Part 15, Class A (Commercial) | FCC Title 47 CFR, Part 15, Class A (Commercial) |
| Minimum starting temp | 0°C (32°F) | 0°C (32°F) |

6" TC 900 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

TC22LED (G4 09LM) RECESSED HOUSING OPEN TRIMS

ORDERING INFORMATION Housing and trim can be ordered together or separate, but will always ship separately.

Example: TC22LED G4 09LM 27K 90CRI MVOLT ZT BR

| Series | Generation | Lumens | Color Temperature | CRI | Voltage/Driver |
|--|--------------------|----------------------------|-------------------|---------------|---|
| TC22LED 6" LED Downlight Non-IC Rated Housing | G4 Generation 4 | 09LM 900 Nominal Lumens | 27K 2700K | 90CRI 90+ CRI | MVOLT ZT10 Multi-Volt (120-277), 0-10V, 10% dim |
| | | | 30K 3000K | | MVOLT ZT1 Multi-Volt (120-277), 0-10V, 1% dim |
| | | | 35K 3500K | | MVOLT EZ10 Multi-Volt (120-277), eldoLED 0-10V, 10% dim |
| | | | 40K 4000K | | MVOLT EZ1 Multi-Volt (120-277), eldoLED 0-10V, 1% dim |
| | | | | | MVOLT ECOD Multi-Volt (120-277), Lutron Hi-Lume EcoSystem, 1% Dimming |

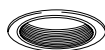

| Emergency Battery | Territory |
|----------------------|-------------------|
| BR Emergency Battery | CP Chicago Plenum |

Note: Chicago Plenum (CP) is not available with emergency option (BR)
Note: Lutron driver (MVOLT ECOD) is not available with emergency battery pack (BR)



A+ Capable options indicated by this color background

Trim/Description

| | | |
|---|------------------|---|
|  | 24 WWH | 6" Tapered Downlight Baffle Trim - White Baffle, White Trim Ring |
| | 24 BWH | 6" Tapered Downlight Baffle Trim - Black Baffle, White Trim Ring |
| | 24 BSC | 6" Tapered Downlight Baffle Trim - Black Baffle, Satin Chrome Trim Ring |
| | 24 BBRZ | 6" Tapered Downlight Baffle Trim - Black Baffle, Bronze Trim Ring |
| | 24 BBL | 6" Tapered Downlight Baffle Trim - Black Baffle, Black Trim Ring |
|  | 27 BWH | 6" Tapered Downlight Cone Trim - Black Cone, White Trim Ring |
| | 27 CWH | 6" Tapered Downlight Cone Trim - Clear Alzak® Cone, White Trim Ring |
| | 27 GWH | 6" Tapered Downlight Cone Trim - Gold Cone, White Trim Ring |
| | 27 HZWH | 6" Tapered Downlight Cone Trim - Haze Cone, White Trim Ring |
| | 27 PTSC | 6" Tapered Downlight Cone Trim - Pewter Cone, Satin Chrome Trim Ring |
| | 27 WHZBRZ | 6" Tapered Downlight Cone Trim - Wheat Haze Cone, Bronze Trim Ring |
| | 27 WHZWH | 6" Tapered Downlight Cone Trim - Wheat Haze Cone, White Trim Ring |
| | 27 WWH | 6" Tapered Downlight Cone Trim - White Cone, White Trim Ring |

Trim Size: 24, 27 - 7 5/8" O.D.

Alzak is a registered trademark of Alcoa Corp.

Note: In Canada when insulation is present, Type IC fixtures must be used.

Notes: ¹ Trim ring compatible with 24 and 27 trims.

Accessories (ordered separately)

| Catalog Number | Description |
|----------------------------|--|
| HB1 | Two 13 1/2" - 25" Reel Nail® 3 bar hangers |
| HB26 | Two 26" C-channel bar hangers |
| HB50 | Two 50" C-channel bar hangers |
| LB27 | Two 27" linear bar hangers |
| LEDOPTICG3 MFL | Medium Flood Optic (50°) |
| LEDOPTICG3 NFL | Narrow Flood Optic (37°) |
| LEDOPTICG3 SP | Spot Optic (10°) |
| TR6 BRZ¹ | 6" Trim Ring - Bronze |
| TR6 BL¹ | 6" Trim Ring - Black |
| TR6 SC¹ | 6" Trim Ring - Satin Chrome |
| TR6 WH¹ | 6" Trim Ring - White |

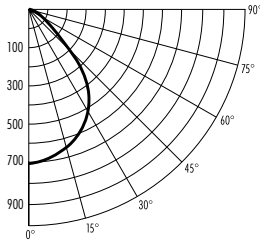
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PHOTOMETRICS

PHOTOMETRIC REPORT

Test Report #: PT02141401R
Catalog No: TC22LED G4 09LM 35K
90CRI MVOLT with 24 WWH White
Trim and Standard Wide Flood Optic
Luminaire Spacing Criterion: 1.16
Luminaire LPW: 70



CANDLEPOWER DISTRIBUTION (Candelas)

| Degrees | Candelas |
|----------|----------|
| Vertical | 0° |
| 0 | 701 |
| 5 | 694 |
| 15 | 653 |
| 25 | 583 |
| 35 | 457 |
| 45 | 207 |
| 55 | 91 |
| 65 | 45 |
| 75 | 26 |
| 85 | 6 |
| 90 | 0 |

Multiplier: 27K - 0.93
30K - 0.99
40K - 1.01

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
Ceiling 80% Wall 50% Floor 20%

| Spacing | RCR1 | RCR3 | RCR5 |
|---------|------|------|------|
| 4.0' | 76 | 63 | 52 |
| 5.0' | 49 | 40 | 33 |
| 6.0' | 34 | 28 | 23 |
| 7.0' | 27 | 23 | 19 |
| 8.0' | 22 | 18 | 15 |
| 9.0' | 17 | 14 | 11 |
| 10.0' | 12 | 10 | 8 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixture |
|-------|--------|-------|----------|
| 0-30° | 517 | N/A | 46.0 |
| 0-40° | 797 | N/A | 70.8 |
| 0-60° | 1046 | N/A | 92.9 |
| 0-90° | 1125 | N/A | 100.0 |

INITIAL FOOTCANDLES (One Unit, 16.1W, 78.8° Beam)

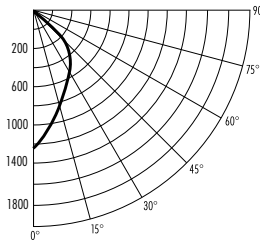
| Distance to Illuminated Plane (Feet) | Footcandles Beam Center | Beam Diameter |
|--------------------------------------|-------------------------|---------------|
| 4 | 43.8 | 6.6' |
| 6 | 19.5 | 9.9' |
| 8 | 10.9 | 13.1' |
| 10 | 7.0 | 16.4' |

LUMINANCE (Average cd/m²)

| Degrees | Average 0° Luminance |
|---------|----------------------|
| 45 | 16031 |
| 55 | 8676 |
| 65 | 5788 |
| 75 | 5507 |
| 85 | 3774 |

PHOTOMETRIC REPORT

Test Report #: LTL25975R
Catalog No: TC22LED G4 09LM 35K
90CRI MVOLT with 27 CWH Clear Alzak®
Trim and Standard Wide Flood Optic
Luminaire Spacing Criterion: 0.78
Luminaire LPW: 77



CANDLEPOWER DISTRIBUTION (Candelas)

| Degrees | Candelas |
|----------|----------|
| Vertical | 0° |
| 0 | 1226 |
| 5 | 1151 |
| 15 | 874 |
| 25 | 685 |
| 35 | 477 |
| 45 | 222 |
| 55 | 74 |
| 65 | 15 |
| 75 | 0 |
| 85 | 0 |
| 90 | 0 |

Multiplier: 27K - 0.93
30K - 0.99
40K - 1.01

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
Ceiling 80% Wall 50% Floor 20%

| Spacing | RCR1 | RCR3 | RCR5 |
|---------|------|------|------|
| 4.0' | 78 | 71 | 61 |
| 5.0' | 50 | 45 | 39 |
| 6.0' | 35 | 32 | 27 |
| 7.0' | 28 | 26 | 22 |
| 8.0' | 22 | 20 | 17 |
| 9.0' | 17 | 15 | 13 |
| 10.0' | 12 | 11 | 10 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixture |
|-------|--------|-------|----------|
| 0-30° | 665 | N/A | 53.9 |
| 0-40° | 967 | N/A | 78.3 |
| 0-60° | 1218 | N/A | 98.7 |
| 0-90° | 1234 | N/A | 100.0 |

INITIAL FOOTCANDLES (One Unit, 16.1W, 58.1° Beam)

| Distance to Illuminated Plane (Feet) | Footcandles Beam Center | Beam Diameter |
|--------------------------------------|-------------------------|---------------|
| 4 | 76.6 | 4.4' |
| 6 | 34.0 | 6.7' |
| 8 | 19.2 | 8.9' |
| 10 | 12.3 | 11.1' |

LUMINANCE (Average cd/m²)

| Degrees | Average 0° Luminance |
|---------|----------------------|
| 45 | 19726 |
| 55 | 7703 |
| 65 | 2135 |
| 75 | 0 |
| 85 | 0 |

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.