

# 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 exceeding ENERGY STAR® requirements yielding superior fixture to fixture color uniformity • 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 (see page 2 for details) using 18W\* • 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 driver that accommodates input voltage from 120-277 volts AC at 50/60Hz is standard and is 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** ENERGY STAR® Certified when used with select baffle and cone trims • 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

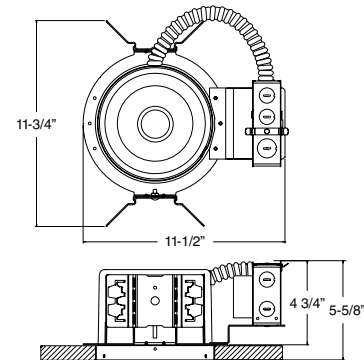
**Housing** Designed for use in TC applications (non-insulated) • Aluminum housing • Housing is vertically adjustable to accommodate up to a 2" ceiling thickness.

**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 @ 120V with standard universal voltage driver under stable operating conditions

### DIMENSIONS



6 7/8" CEILING CUTOUT

### ELECTRICAL DATA

#### STANDARD UNIVERSAL VOLTAGE DRIVER (ZT)

	120V	277V
Input Power	18W (+/-5%)	18W (+/-5%)
Input Current - Max	0.15A	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	-40°C (-40°F)	-40°C (-40°F)

#### UNIVERSAL VOLTAGE DRIVER WITH EMERGENCY OPTION (ZT BR)

	120V	277V
Input Power	21.3W (+/-5%)	21.3W (+/-5%)
Input Current - Max	0.33A	0.30A
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 (ECOS3)

	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)

#### LUTRON HI-LUME® LED DRIVER WITH EMERGENCY OPTION (ECOS3 BR)

	120V	277V
Input Power	21W (+/-5%)	21W (+/-5%)
Input Current - Max	0.33A	0.29A
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.












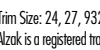
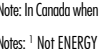
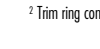



**Example:** TC22LED G4 09LM 27K 90CRI MVOLT ZT BR

Series	Generation	Lumens	Color Temperature	CRI	Voltage
<b>TC22LED</b> 6" LED Downlight Non-IC Rated Housing	<b>G4</b> Generation 4	<b>09LM</b> 900 Nominal Lumens	<b>27K</b> 2700K <b>30K</b> 3000K <b>35K</b> 3500K <b>40K</b> 4000K	<b>90CRI</b> 90+ CRI	<b>MVOLT</b> Multi-Volt (120-277V)

Driver	Emergency Battery	Territory
<b>ECOS3</b> Lutron Hi-Lume A Series, 3-wire fluorescent controls & Lutron EcoSystem <b>ZT</b> 0-10V Dimming Driver	<b>BR</b> Emergency Battery	<b>CP</b> Chicago Plenum

Note: Chicago Plenum (CP) is not available with emergency option (BR)

### Trim/Description

	<b>24 WWH</b>	6" Downlight Tapered Baffle Trim - White Baffle, White Trim Ring
	<b>24 BWH<sup>1</sup></b>	6" Downlight Tapered Baffle Trim - Black Baffle, White Trim Ring
	<b>24 BSC<sup>1</sup></b>	6" Downlight Tapered Baffle Trim - Black Baffle, Satin Chrome Trim Ring
	<b>24 BABZ<sup>1</sup></b>	6" Downlight Tapered Baffle Trim - Black Baffle, Classic Age Bronze Trim Ring
	<b>24 BBL<sup>1</sup></b>	6" Downlight Tapered Baffle Trim - Black Baffle, Black Trim Ring
	<b>27 BWH<sup>1</sup></b>	6" Downlight Tapered Cone Trim - Black Cone, White Trim Ring
	<b>27 CWH</b>	6" Downlight Tapered Cone Trim - Clear Alzak <sup>®</sup> Cone, White Ring
	<b>27 GWH</b>	6" Downlight Tapered Cone Trim - Gold Cone, White Trim Ring
	<b>27 HZWH</b>	6" Downlight Tapered Cone Trim - Haze Cone, White Trim Ring
	<b>27 PTSC</b>	6" Downlight Tapered Cone Trim - Pewter Cone, Satin Chrome Trim Ring
	<b>27 WHZABZ</b>	6" Downlight Tapered Cone Trim - Wheat Haze Cone, Classic Aged Bronze Trim Ring
	<b>27 WHZWH</b>	6" Downlight Tapered Cone Trim - Wheat Haze Cone, White Trim Ring
	<b>27 WWH</b>	6" Downlight Tapered Cone Trim - White Cone, White Trim Ring
	<b>9024 WWH</b>	6" Decorative Octagonal Trim - White, White Trim Ring
	<b>9324 SC</b>	6" Decorative Luminous Disc Frosted Trim - Satin Chrome
	<b>9524 SC</b>	6" Decorative Metal Band Trim - Satin Chrome
	<b>9702</b>	6" Decorative Luminous Collar Frosted Trim - Luminous Collar (Frosted)

Trim Size: 24, 27, 9324, 9524 - 7 5/8" O.D.; 9702 - 7 3/4" O.D.; 9024 - 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: <sup>1</sup> Not ENERGY STAR<sup>®</sup> Certified.

<sup>2</sup> Trim ring compatible with 24 and 27 trims.

### Accessories (ordered separately)

Catalog Number	Description
<b>HB1</b>	Two 13 1/2" - 25" Real Nail <sup>®</sup> 3 bar hangers
<b>HB26</b>	Two 26" C-channel bar hangers
<b>HB50</b>	Two 50" C-channel bar hangers
<b>LB27</b>	Two 27" linear bar hangers
<b>LEDOPTICG3 MFL</b>	Medium Flood Optic (50°)
<b>LEDOPTICG3 NFL</b>	Narrow Flood Optic (37°)
<b>LEDOPTICG3 SP</b>	Spot Optic (10°)
<b>TR6 ABZ<sup>2</sup></b>	6" Trim Ring - Classic Age Bronze
<b>TR6 BL<sup>2</sup></b>	6" Trim Ring - Black
<b>TR6 SC<sup>2</sup></b>	6" Trim Ring - Satin Chrome
<b>TR6 WH<sup>2</sup></b>	6" Trim Ring - White

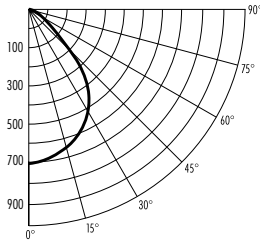
# 6" TC 900 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

TC22LED (G4 09LM) RECESSED HOUSING  
OPEN TRIMS

## 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: 63



### 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, 17.8W, 78.8° Beam)

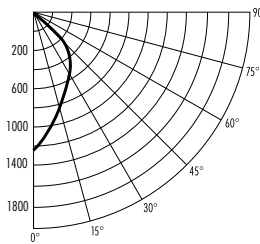
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	43.8	6.6'
6	19.5	9.9'
8	10.9	13.1'
10	7.0	16.4'

### 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: 69



### 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, 17.8W, 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.