



Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Location: \_\_\_\_\_

Contact/Phone: \_\_\_\_\_

# 6" TC 2000 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

TC2022LED4 RECESSED HOUSING  
LENSED 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 two 26W or one 57W compact fluorescent, while consuming 26W\*

## 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 4100K 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 • Wide flood (>70° typical) 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 24% 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 • Trim are wet location approved for covered ceiling applications.

**Testing** All reports are based on published industry procedures; field performance may differ from laboratory performance.

Product specifications subject to change without notice.

## HOUSING FEATURES

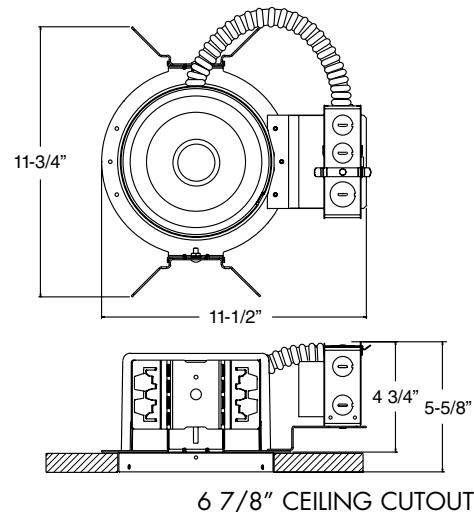
**Housing** Designed for use in TC applications (non-insulated) • Aluminum housing • Housing is vertically adjustable to accommodate up to a 2" ceiling thickness.

**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 (HB-26 or HB-50), linear flat bars (LB-27) or Patented (US Patent D552,969) Real Nail® 3 bar hangers (HB-1).

\*Nominal input wattage @ 120V with standard universal voltage driver under stable operating conditions

## DIMENSIONS



## ELECTRICAL DATA

### STANDARD UNIVERSAL VOLTAGE DRIVER (-U)

	120V	277V
Input Power	26.3W (+/-5%)	26.0W (+/-5%)
Input Current	0.22A	0.10A
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 (-UBR)

	120V	277V
Input Power	29.1W (+/-5%)	28.8W (+/-5%)
Input Current	0.27A	0.15A
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 (-L)

	120V	277V
Input Power	27.0W (+/-5%)	27.0W (+/-5%)
Input Current	0.23A	0.10A
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 (-LBR)

	120V	277V
Input Power	29.7W (+/-5%)	29.7W (+/-5%)
Input Current	0.27A	0.15A
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)



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## TC2022LED4 RECESSED HOUSING LENSED TRIMS

**ORDERING INFORMATION:** Housing, trim and accessories each ordered separately.










Example: **TC2022LED4-27K-UBR**

Catalog No.	Color Temp.	Voltage	Options
<b>TC2022LED4</b>	<b>27K</b> 2700K <b>3K</b> 3000K <b>35K</b> 3500K <b>41K</b> 4100K	<b>U</b> Universal Voltage 120-277V (0-10V dimming) <b>L</b> Lutron Hi-Lume 3-wire Dimming Ecosystem® Compatible	<b>BR</b> Emergency Battery Back-up w/Remote Switch <b>CP</b> Chicago Plenum Chicago Plenum is not available with emergency option

Example: **HB-26**

Cat. #	Description	Cat. #	Description
<b>HB-1</b>	Two 13 1/2" - 25" Real Nail® 3 bar hangers	<b>LEDOPTICG3-M</b>	Medium Flood Optic (50°)
<b>HB-26</b>	Two 26" C-channel bar hangers	<b>LEDOPTICG3-N</b>	Narrow Flood Optic (37°)
<b>HB-50</b>	Two 50" C-channel bar hangers	<b>LEDOPTICG3-S</b>	Spot Optic (10°)
<b>LB-27</b>	Two 27" linear bar hangers		

Example: **239-WH**

Trim/Description	
	<b>20-WH</b> Albalite <b>20-PW</b> Shower/Closet Light
	<b>21-WH</b> Drop Opal <b>21-PW</b> Shower/Closet Light
	<b>22-WH</b> Fresnel
	<b>239-WH *</b> Frosted Lens
	<b>242-WH</b> Shower Trim <b>242-SC</b> Frosted Lens with Clear Center <b>242-ABZ</b>
	<b>243-WH *</b> Decorative Swirled Etched Opal Glass
	<b>2330W-WH *</b> White Baffle, Regressed Frosted Dome Lens with Reflector
	<b>2330B-WH *</b> Black Baffle, Regressed Frosted Dome Lens with Reflector
	<b>6101-ABZ *</b> Beveled Frame - <b>6101-SC *</b> Frosted Dome Lens with Reflector <b>6101-WH *</b>

UL Listed for use in wet location.

\* Do not use reflector shipped with trim for LED housing.

Trim Size: 2330 - 7 3/8" O.D.; 239, 242, 243 - 7 3/8" O.D.; 6101 - 7 3/4" O.D.; 20, 21, 22 - 8" O.D.

Trim Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White, PW - Plastic White (Polycarbonate material shower trim).

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

### PHOTOMETRIC REPORT

Test Report#: PT08152805R

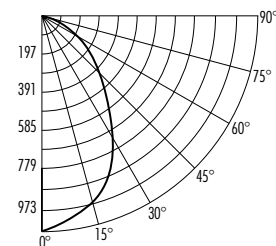
Catalog No: TC2022LED4-35K-U

with 239-WH Lensed Trim and

Standard Wide Flood Optic

Luminaire Spacing Criteria: 1.02

Luminaire LPW: 63



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1070
5	1061
15	978
25	800
35	543
45	309
55	174
65	104
75	57
85	16
90	0
Multiplier:	27K - 0.93 3K - 0.97 41K - 1.02

### AVERAGE INITIAL FOOTCANDLES Multiple Units (Square Array, 60'x60' room)

Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	111	90	75
5.0'	71	58	48
6.0'	49	40	33
7.0'	40	32	27
8.0'	32	26	21
9.0'	24	20	16
10.0'	18	14	12

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	740	N/A	44.6
0-40°	1078	N/A	65.0
0-60°	1477	N/A	89.1
0-90°	1659	N/A	100.0

### INITIAL FOOTCANDLES (One Unit, 26.3W, 70.6° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	66.9	5.7
6	29.7	8.5
8	16.7	11.3
10	10.7	14.2

### LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	23918
55	16653
65	13413
75	11977
85	9992

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.