



# LED RECESSED DOWNLIGHT

1-3/4" REGRESSED  
PINHOLE APERTURE

Non-IC Rated, 1000 LUMEN

**TC49L-4307N, TC949L-4307N**

## PRODUCT DESCRIPTION

Recessed downlight 20W LED luminaire with 1-3/4" regressed pinhole aperture produces up to 840 fixture lumens and approximates the performance of a 75W MR16 lamp. Fixture has 50° visual cutoff and features precision geared hot-aiming. Sealed Air-Loc® housing ensures maximum energy savings and controls plenum sound transmission. Low profile Non-IC rated housing for use in non-insulated areas or where insulation is spaced at least 3" from housing.

## PRODUCT SPECIFICATIONS

**LED Light Engine** Consistent fixture to fixture color consistency within 3-step MacAdam ellipse • 2700K, 3000K, 3500K, or 4000K color temperatures are available with 85 CRI typical • 3000K also available with 93 CRI typical and R9 >80.

**Modular Optics** Available with 12° Spot, 24° Narrow Flood, or 35° Flood field interchangeable optics • 50° distribution is available when AF3-50DEG accessory lens is used with 12° Spot optic • Patent pending auto-adjusting optic holder maximizes luminaire efficiency by maintaining optimal LED optic position • Accommodates up to three (3) additional beam control lenses and/or filters.

**Reflector** .040" aluminum parabolic reflector in black Alzak finish shields housing interior.

**Trims Style** Die Cast trims utilize torsion spring retention for tight, secure fit to ceiling • Flush Mount trim creates a truly trimless aperture • For flush mount installations in drywall ceilings use the FMA4 flush mount adapter • For flush mount installations in wood, stone, or tile ceilings the FMA4-SC\*\*\* must be used (specify ceiling thickness and adapter finish).

**LED Driver** Choice of four drivers to accommodate voltages from 120-277 volts AC • Dedicated 120V (-1) driver is dimmable with most incandescent, magnetic low voltage, and electronic low voltage dimmers • Universal Voltage (-U) driver is dimmable with most 0-10V protocol dimmers • Lutron Hi-Lume® A Series 3-wire (-L) driver is dimmable with 3-wire fluorescent controls and compatible with EcoSystem® • Lutron Hi-Lume® A Series 2-wire (-D) driver is dimmable with 2-wire forward phase dimmers containing a neutral wire • For a list of compatible dimmers, refer to [ACLXLED-DIM](#) • Power Factor > 0.9 • Field replaceable from below or above ceiling.

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

**Warranty** 5 years from date of purchase on LED components • Standard Juno Lighting Group product guarantee terms and conditions apply.

**Codes/Labels** UL and cUL listed for through branch wiring, damp locations • Meets energy code Air Leakage requirements per ASTM E283 • Union made.

**Mounting** TC49L features Patented (US Patent 8,038,113) Pro-VI™ Bar Hanger System with locking set screws, permitting quick placement of housing within 24" O.C. joists or suspended ceilings • Robust bar eliminates flexing regardless of fixture position • Integral T-bar notch with locking tabs secures housing to suspended ceiling grid • Captive bugle-headed ring shank nail for quick one-step installation • Bar Hanger foot aligns to bottom of construction joist and breaks away for use in suspended ceilings.

TC949L is equipped with vertically adjustable mounting brackets that accept 1/2" conduit, "C" channels (HB-26 or HB-50), linear flat bars (LB-27) or 26" telescoping Real Nail bar hangers (HB-1).

**Junction Box** Rated for 8 No. 12 AWG 90° C through branch circuit conductors and includes (6) 1/2", (1) 3/4", and (4) Non-metallic sheathed cable knock-outs • Push-in electrical connectors for field connections.

**Housing/Mounting Frame** Black steel plaster frame and housing painted for visually dark interior • V-Notch in plaster frame and Patented (US Patent 8,277,090) Tru-Line™ Platform featuring +/- 1/2" translation aids fixture alignment after installation, prior to drywall.

**Ceiling Thickness** 1/2" – 7/8" ceiling standard • For thicker ceilings, order CTA4N-125 (7/8"-1 1/4"), CTA4N-163 (1 1/4"-1 5/8") or CTA4N-200 (1 5/8"-2") • CTA4N not required for wood, stone, or tile flush mount applications.

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

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

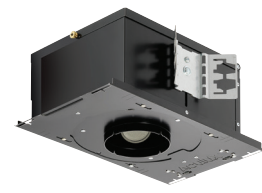
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Contact/Phone: \_\_\_\_\_

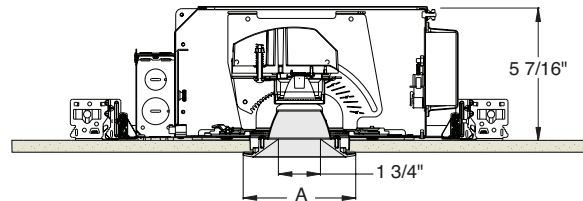
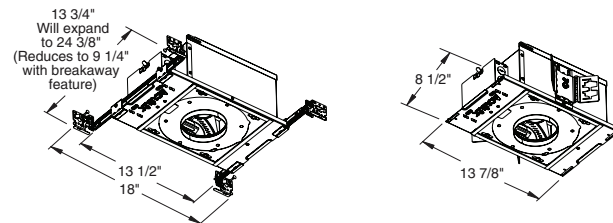
**TC49L**



**TC949L**



## DIMENSIONS



4 1/4" CEILING CUTOUT  
(REFER TO INSTRUCTION SHEET FOR  
FLUSH MOUNT CEILING CUTOUT)

	A
Trim Ring	4 5/8"
Flush Mount	3 7/8"

## ELECTRICAL DATA

Driver Option	Dedicated 120V (-1)	Universal Voltage (-U)		Lutron 3-wire (-L)	Lutron 2-wire (-D)
Voltage	120	120	277	120 277	120
Input Power	18.7	20.6	22.1	19.7 21.1	20.0
Input Current	0.16	0.17	0.08	0.16 0.08	0.17
Frequency	50/60Hz	50/60Hz		50/60Hz	50/60Hz
Power Factor	0.98	0.99	0.90	0.99 0.94	0.98

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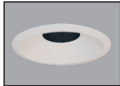

**TC49L-4307N, TC949L-4307N**

**Ordering Information** Housing, trim and accessories each ordered separately

Example: **TC49L-830-N-U**

Housings	CRI/Color Temperature	Beam Optics	Drivers	Options
<b>TC49L</b>	<b>827</b> 2700K, 85CRI	<b>S</b> 12° Spot	<b>1</b> 120V, Forward & Reverse Phase Dimming	<b>CP</b> Chicago Plenum
<b>TC949L</b>	<b>830</b> 3000K, 85CRI	<b>N</b> 24° Narrow Flood		
	<b>835</b> 3500K, 85CRI	<b>F</b> 35° Flood	<b>U</b> 120-277V, 0-10V Dimming	
	<b>840</b> 4000K, 85CRI		<b>L</b> 120-277V, Lutron Hi-Lume 3-wire Dimming, Ecosystem Compatible	
	<b>930</b> 3000K, 93CRI		<b>D</b> 120V, Lutron Hi-Lume 2-wire Dimming	

Example: **4307N-WH**

Trim/Description		
		
<b>Trim Ring</b>	<b>Flush Mount<sup>1</sup></b>	<b>Description</b>
<b>4307N-WH</b>	<b>4307N-WH-FM</b>	White Trim
<b>4307N-BL</b>	<b>4307N-BL-FM</b>	Black Trim

<sup>1</sup>Flush Mount trims must be used with Flush Mount Adapter, ordered separately.  
Product specifications subject to change without notice.

**Flush Mount Adapters**

Cat. #	Description
<b>FMA4</b>	Drywall Ceiling Adapter
<b>FMA4-SC087-WH</b>	Wood, Stone, Tile, 1/2"-7/8" Thick Ceiling, Adapter, White
<b>FMA4-SC087-BL</b>	Wood, Stone, Tile, 1/2"-7/8" Thick Ceiling, Adapter, Black
<b>FMA4-SC125-WH</b>	Wood, Stone, Tile, 7/8"-1 1/4" Thick Ceiling, Adapter, White
<b>FMA4-SC125-BL</b>	Wood, Stone, Tile, 7/8"-1 1/4" Thick Ceiling, Adapter, Black
<b>FMA4-SC163-WH</b>	Wood, Stone, Tile, 1 1/4"-1 5/8" Thick Ceiling, Adapter, White
<b>FMA4-SC163-BL</b>	Wood, Stone, Tile, 1 1/4"-1 5/8" Thick Ceiling, Adapter, Black

**Optical Accessories**

Cat. #	Description	Cat. #	Description
<b>TIR-1-SP</b>	12° Spot Optic	<b>T7403</b>	Med. Green Dichroic Lens
<b>TIR-1-NFL</b>	24° Narrow Flood Optic	<b>T7404</b>	Med. Blue Dichroic Lens
<b>TIR-1-FL</b>	35° Flood Optic	<b>T7405</b>	Yellow Dichroic Lens
<b>AF3-50DEG</b>	50° Optic Film (Use with 12° Optic)	<b>T7406</b>	Magenta Dichroic Lens
<b>T741</b>	Med. Pink Color Filter	<b>T7411</b>	Blue Green Dichroic Lens
<b>T742</b>	Warm Red Color Filter	<b>T7416</b>	Daylight Blue Correction Lens
<b>T743</b>	Daylight Blue Color Filter	<b>T7420</b>	Diffuse Spread Lens
<b>T744</b>	Med. Blue Color Filter	<b>T7422</b>	UV Filter Lens
<b>T745</b>	Med. Amber Color Filter	<b>T7477</b>	Prismatic Lens
<b>T746</b>	Med. Green Color Filter	<b>T7478</b>	Linear Spread Lens
<b>T7401</b>	Red Dichroic Lens	<b>T7459BL</b>	Hexcell Louver

**Misc. Accessories**

Cat. #	Description
<b>CTA4N-125</b>	1 1/4" Thick Ceiling Adapter
<b>CTA4N-163</b>	1 5/8" Thick Ceiling Adapter
<b>CTA4N-200</b>	2" Thick Ceiling Adapter
<b>HB-1</b>	(2) Real Nail 3 Bar Hangers
<b>HB-26</b>	(2) 26" C-Channel Bar Hangers
<b>HB-50</b>	(2) 50" C-Channel Bar Hangers
<b>LB-27</b>	(2) 27" Linear Bar Hangers
<b>EMI-20</b>	20W Emergency Lighting Inverter

To order, specify catalog number.



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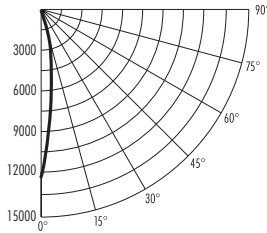
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### TC49L-4307N, TC949L-4307N

**PHOTOMETRIC REPORT**

Test Report #: PT05121601  
 Catalog No: TC49L-830-S-1  
 with 4307N-WH Trim

Luminaire Spacing Criterion: 0.23  
 Luminaire LPW: 40.9



**CANDLEPOWER DISTRIBUTION (Candelas)**

Degrees	Vertical	0°
0	12127	
5	7239	
15	512	
25	32	
35	0	
45	0	
55	0	
65	0	
75	0	
85	0	
90	0	

Multipliers: 827 - 0.92  
 930 - 0.92  
 835 - 1.01  
 840 - 1.02

**AVERAGE INITIAL FOOTCANDLES**

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

Spacing	RCR1	RCR3	RCR5
4.0'	58	55	53
5.0'	37	35	34
6.0'	26	25	23
7.0'	21	20	19
8.0'	17	16	15
9.0'	13	12	11
10.0'	9	9	8

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30°	818	99.8
0-40°	819	100.0
0-60°	819	100.0
0-90°	819	100.0

**INITIAL FOOTCANDLES**

(One Unit, 20.0W, 11.8° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	338.1	1.2'
8	190.2	1.7'
10	121.7	2.1'
12	84.5	2.5'

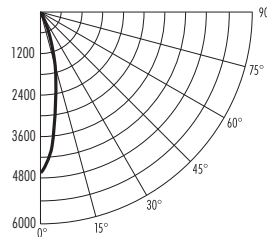
**LUMINANCE (Average cd/m²)**

Degrees	Average Luminance
45	0
55	0
65	0
75	0
85	0

**PHOTOMETRIC REPORT**

Test Report #: PT05121608  
 Catalog No: TC49L-830-N-1  
 with 4307N-WH Trim

Luminaire Spacing Criterion: 0.39  
 Luminaire LPW: 41.8



**CANDLEPOWER DISTRIBUTION (Candelas)**

Degrees	Vertical	0°
0	4680	
5	4199	
15	1375	
25	87	
35	11	
45	0	
55	0	
65	0	
75	0	
85	0	
90	0	

Multipliers: 827 - 0.92  
 930 - 0.92  
 835 - 1.01  
 840 - 1.02

**AVERAGE INITIAL FOOTCANDLES**

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

Spacing	RCR1	RCR3	RCR5
4.0'	60	55	52
5.0'	38	35	33
6.0'	26	24	23
7.0'	21	20	19
8.0'	17	16	15
9.0'	13	12	11
10.0'	10	9	8

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30°	827	98.9
0-40°	836	100.0
0-60°	836	100.0
0-90°	836	100.0

**INITIAL FOOTCANDLES**

(One Unit, 20.0W, 24.1° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	130.0	2.6'
8	73.1	3.4'
10	46.8	4.3'
12	32.5	5.1'

**LUMINANCE (Average cd/m²)**

Degrees	Average Luminance
45	0
55	0
65	0
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.

