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## LED RECESSED DOWNLIGHT

#### **PRODUCT DESCRIPTION**

Recessed downlight 20W LED luminaire with 1¼" pinhole aperture produces up to 625 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** Trim Ring and Flush Mount trims utilize torsion spring retention for tight, secure fit to ceiling • Trim ring features beveled knife edge for clean ceiling interface • Trim has solite lens on 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 <u>ACLXLED-DIM</u> • 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 ½" 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) ½", (1) ¾", 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 +/- ½″ 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. 1-1/4" PINHOLE APERTURE Non-IC Rated, 1000 LUMEN

P1.4.18

TC49L-4337N, TC949L-4337N

Project:

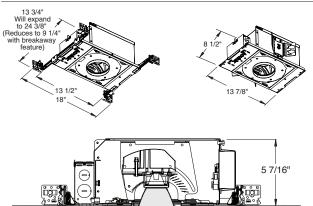
Fixture Type:

Location:

Contact/Phone:



#### DIMENSIONS



4 1/4" CEILING CUTOUT

(REFER TO INSTRUCTION SHEET FOR

FLUSH MOUNT CEILING CUTOUT)

A Trim Ring 5″ Flush Mount 37/8″

#### **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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## LED RECESSED DOWNLIGHT 1-1/4" PINHOLE APERTURE Non-IC Rated, 1000 LUMEN TC49L-4337N, TC949L-4337N

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

Example: TC49L-830-N-U				Example: 43371	HW-I						
Housings		I/Color perature		Beam Optics	_	Drivers		Options		Trim/D	Description
TC49L	827	2700K, 85CRI	S	12° Spot	-	120V, Forward	CF	<ul> <li>Chicago Plenum</li> </ul>			
TC949L	830		N	24° Narrow Flood		& Reverse Phase Dimming					
	835	3500K, 85CRI	F	35° Flood	U	120-277V, 0-10V			Trim Ring 4337N-WH	Flush Mount <sup>1</sup> 4337N-WH-FM	Description White Trim
	840	4000K, 85CRI			L	Dimming 120-277V, Lutron			4337N-ABZ 4337N-SC 4337N-BL	- 4337N-BL-FM	Aged Bronze Trim Satin Chrome Trim Black Trim
	930	3000K, 93CRI				Hi-Lume 3-wire Dimming, Ecosystem Compatible				must be used with Fluitions subject to change	sh Mount Adapter, ordered separately. without notice.
					D	120V, Lutron Hi-Lume 2-wire Dimming					

#### **Flush Mount Adapters**

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

#### **Optical Accessories**

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

Misc. Accessories					
Cat. #	Description				
CTA4N-125	1 1/4" Thick Ceiling Adapter				
CTA4N-163	1 5/8" Thick Ceiling Adapter				
CTA4N-200	2" Thick Ceiling Adapter				
HB-1	(2) Real Nail 3 Bar Hangers				
HB-26	(2) 26" C-Channel Bar Hangers				
HB-50 (2) 50" C-Channel Bar Hangers					
LB-27	(2) 27" Linear Bar Hangers				
EMI-20	20W Emergency Lighting Inverter				
To order, specify catalog number.					



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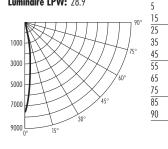
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## LED RECESSED DOWNLIGHT 1-1/4" PINHOLE APERTURE Non-IC Rated, 1000 LUMEN TC49L-4337N, TC949L-4337N

#### PHOTOMETRIC REPORT

Test Report #: PT05121502 Catalog No: TC49L-830-S-U with 4337N-WH Trim

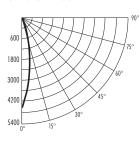
Luminaire Spacing Criterion: 0.28 Luminaire LPW: 28.9



#### PHOTOMETRIC REPORT

Test Report #: PT05121607 Catalog No: TC49L-830-N-U with 4337N-WH Trim

Luminaire Spacing Criterion: 0.34 Luminaire LPW: 31.2



#### CANDLEPOWER AVERAGE INITIAL FOOTCANDLES

DISTRIBUTION

0°

7727

5402 227

12

0

0

0

0

0

0

0

0°

4663

3999

821

24

0

0

0

0

0

0

0

CANDLEPOWER

DISTRIBUTION

(Candelas)

Degrees

Vertical

0

5

15

25

35

45

55

65

 $\frac{75}{85}$ 

90

(Candelas)

Degrees

Vertical

0

Multiple Units (Square Array, 60'x60' room)

Spacing	RCR1	RCR3	RCR5
4.0′	41	39	37
5.0´	26	25	24
6.0´	18	17	17
7.0´	15	14	13
8.0´	12	11	11
9.0´	9	8	8
10.0′	7	6	6

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture	
0 - 30°	578	100.0	
0 - 40°	578	100.0	
0-60°	578	100.0	
0 - 90°	578	100.0	

### AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80	% Wall 50	J% Floor 2	20%
Spacing	RCR 1	RCR3	RCR5
4.0´	45	41	39
5.0´	29	27	25
6.0´	20	18	18
7.0´	16	15	14
8.0´	13	12	11
9.0´	10	9	9
10.0´	7	7	6

#### ZONAL LUMEN SUMMARY

Lumens	%Fixture
625	100.0
625	100.0
625	100.0
625	100.0
	625 625 625

### 

(One Unit, 20.0W, 13.8° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	214.6	1.5′
8	120.7	1.9′
10	77.3	2.4′
12	53.7	2.9′

#### LUMINANCE (Average cd/m<sup>2</sup>)

#### Average

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

### INITIAL FOOTCANDLES

(One Unit, 20.0W, 20.7° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	129.5	2.2′
8	72.8	2.9′
10	46.6	3.7′
12	32.4	4.4′

#### LUMINANCE (Average cd/m²)

Average Degrees Luminance		
Degrees	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.

Multipliers:	827 - 0.92
	930 - 0.92
	835 - 1 01

835 - 1.01 840 - 1.02