



# BLACK BODY DIMMING & TUNABLE WHITE 700/1000 LUMEN ADJUSTABLE LED

3-1/4" BAFFLED ANGLE CUT APERTURE

**IC(9)43T-435N, IC49T-435N,  
TC(9)49T-435N**

## PRODUCT DESCRIPTION

Recessed adjustable LED luminaire features both Black Body Dimming and Tunable White technology in a single fixture. In Black Body Dimming mode, the luminaire duplicates halogen dimming, creating a natural warm glow as the CCT shifts from 3000K to less than 1800K when dimmed. In Tunable White mode, the CCT can be adjusted anywhere along the Planckian locus from 2000K through 4350K independent of dimming. Aculux Black Body Dimming and Tunable White luminaires feature a sealed Air-Loc® housing and is available in both IC and Non-IC rated configurations.

## PRODUCT SPECIFICATIONS

**LED Light Engine** With single dimmer connected, the light engine duplicates halogen, with the CCT shifting from 3000K at 100% to 1800K when dimmed to 1%. • Connect a second dimmer to engage Tunable White mode, featuring independent dimming and CCT tuning from 2000K through 4350K • Superb color consistency within 2 SDCM of the Planckian locus over CCT range • Accurate color rendition with 90 CRI at 3000K, and 85 CRI/70 R9 throughout CCT range.

**Dimming and CCT Control** Black Body Dimming and CCT Tuning are compatible with most 0-10V protocol dimmers • IC rated housings are rated for 120-277V input • For Non-IC housings, specify 120V or 277V. Refer to installation instructions for detailed wiring schematics.

**Modular Optics** Field interchangeable optics available with 21° Very Narrow Flood, 27° Narrow Flood, or 36° Flood distributions • 50° distribution is available when AF3-50DEG accessory lens is used with 27° Narrow Flood optic • Patent pending auto-adjusting optic holder maximizes luminaire efficiency by maintaining optimal LED optic position relative to trim • Accommodates up to three (3) beam control lenses and/or filters.

**Adjustability** Acu-Aim™ precision geared hot-aiming achieves 370° rotation, 45° tilt • Optimized center beam optics translates light engine forward as it is aimed off nadir

**Baffle** Angle-cut grooved baffle available in white or black provides 50° cut-off.

**Trims Style** Trim ring features beveled knife edge for clean ceiling interface.

**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** Available with either Patented (US Patent 8,038,113) Pro-VI™ bar hanger system, permitting quick placement of housing with 24" on-center joists or suspended ceilings, or with vertically adjustable mounting brackets (butterfly brackets). Specify mounting style when ordering.

**Junction Box** IC housings are rated for 4 No. 12 AWG 90°C through branch circuit conductors. • Non-IC housings are rated for 8 No. 12 AWG 90°C through branch circuit conductors. • Includes (5) 1/2", (1) 3/4", and (4) Non-metallic sheathed cable knock-outs. • Push-in electrical connectors for field connections.

**Housing/Mounting Frame** Housing painted black 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.

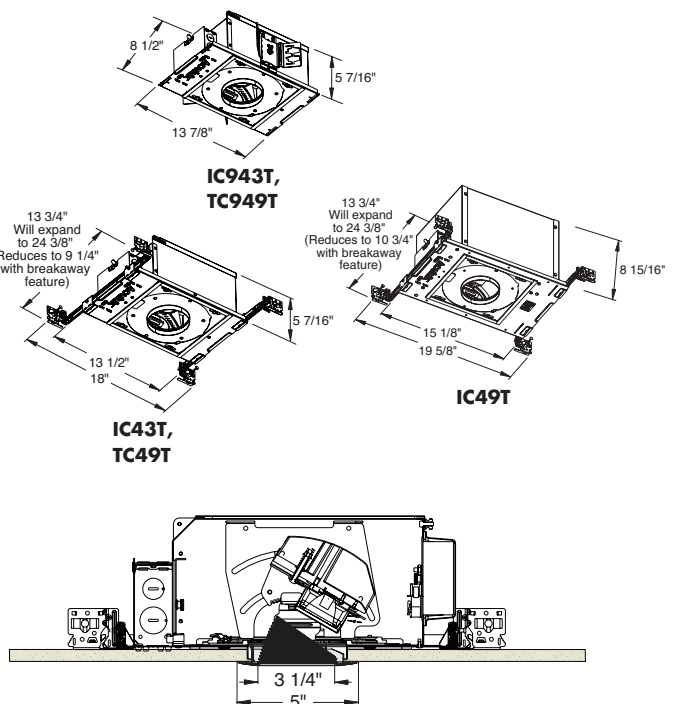
**Ceiling Thickness** 1/2" - 7/8" ceiling standard • For thicker ceilings, order CTA4N-125 (7/8"-1 1/4"), CTA4N-163 (1 1/4"-1 5/8") or CTA4N-200 (1 5/8"-2") • CTA4N not required for wood, stone, or tile flush mount applications.

## ELECTRICAL DATA

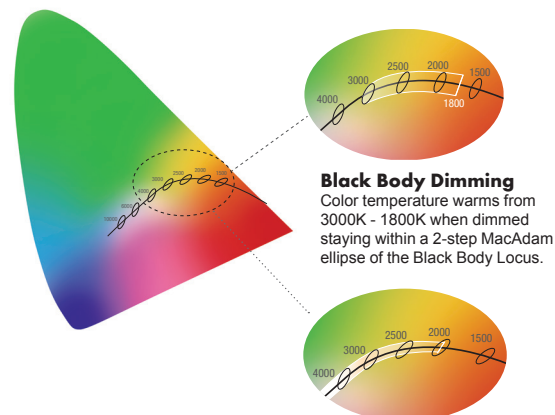
Housing	IC(9)43T		IC49T		TC(9)49T	
Voltage	120	277	120	277	120	277
Input Power (W)	13.0	14.3	20.5	21.6	22.5	23.6
Input Current (A)	0.11	0.06	0.17	0.09	0.18	0.09
Frequency	50/60Hz		50/60Hz		50/60Hz	
Power Factor	0.99	0.92	0.99	0.92	0.99	0.92

Type	Cat. No.
_____	_____
Project:	_____
Notes:	_____

## DIMENSIONS



4 1/4" CEILING CUTOUT



**Black Body Dimming**  
Color temperature warms from 3000K - 1800K when dimmed staying within a 2-step MacAdam ellipse of the Black Body Locus.

**Tunable White**  
Color temperature can be tuned from 4350K - 2000K while staying within a 2-step MacAdam ellipse of the Black Body Locus.



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

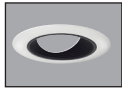
Example: **TC949T-W-N-U1**

Housing	Tunable White Range	Beam Spread	Voltage/Dimming <sup>1</sup>	Options
<input type="text"/>	<b>W</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>IC43T</b> 700 Lumen, Bar Hangers (IC)	<b>W</b> 4350K - 2000K	<b>V</b> 21° Very Narrow Flood	<b>U</b> 120-277V, 0-10V Dimming	<b>CP*</b> Chicago Plenum
<b>IC943T</b> 700 Lumen, Butterfly Brackets (IC)		<b>N</b> 27° Narrow Flood	<b>U1</b> 120V, 0-10V Dimming	
<b>IC49T</b> 1000 Lumen, Bar Hangers (IC)		<b>F</b> 36° Flood	<b>U2</b> 277V, 0-10V Dimming	
<b>TC49T</b> 1000 Lumen, Bar Hangers (Non-IC)				
<b>TC949T</b> 1000 Lumen, Butterfly Brackets (Non-IC)				

\* Not available on IC49T Housing.  
<sup>1</sup> IC is Universal voltage. Specify voltage for Non-IC products.

Example: **435NB-WH**

**Trim**



Trim Ring	Description
<b>435NB-WH</b>	Black Baffle, White Ring
<b>435NB-ABZ</b>	Black Baffle, Aged Bronze Ring
<b>435NB-SC</b>	Black Baffle, Satin Chrome Ring
<b>435NB-WH</b>	White Baffle, White Ring

Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White.

Product specifications subject to change without notice.

**Optical Accessories**

Cat. #	Description	Cat. #	Description
<b>AF3-50DEG</b>	50° Optic Film (Use with 27° Optic)	<b>T7403</b>	Med. Green Dichroic Lens
<b>T1R-TW-V</b>	21° Very Narrow Flood Optic	<b>T7404</b>	Med. Blue Dichroic Lens
<b>T1R-TW-N</b>	27° Narrow Flood Optic	<b>T7405</b>	Yellow Dichroic Lens
<b>T1R-TW-F</b>	36° Flood 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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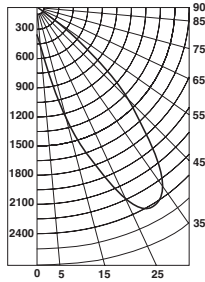
3-1/4" BAFFLED ANGLE CUT APERTURE

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**PHOTOMETRIC REPORT**

Test Report: PT10131810R  
Catalog No: IC49T-W-F-U (Aim at 30°)  
with 435NW-WH trim

Watts: 19.8  
Lumens: 872  
Luminaire LPW: 44



**Candlepower Distribution**

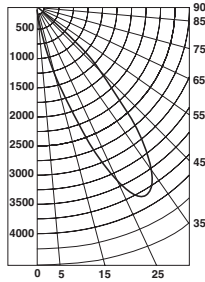
(Candelas)  
Degrees

Vertical	Candela
0°	209
5°	392
10°	746
15°	1259
20°	1772
25°	2202
30°	2411
35°	2340
40°	2008
45°	1414
50°	773
55°	181
60°	40
65°	8
70°	2
75°	2
80°	1
85°	0
90°	0

**PHOTOMETRIC REPORT**

Test Report: PT10131816R  
Catalog No: IC49T-W-N-U (Aim at 30°)  
with 435NW-WH trim

Watts: 19.8  
Lumens: 956  
Luminaire LPW: 48



**Candlepower Distribution**

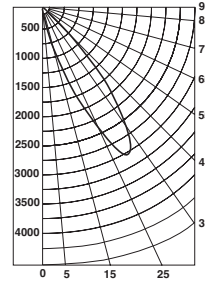
(Candelas)  
Degrees

Vertical	Candela
0°	139
5°	305
10°	653
15°	1338
20°	2447
25°	3387
30°	3811
35°	3650
40°	2917
45°	1604
50°	504
55°	63
60°	16
65°	5
70°	2
75°	2
80°	2
85°	0
90°	0

**PHOTOMETRIC REPORT**

Test Report: PT10131813R  
Catalog No: IC49T-W-V-U (Aim at 30°)  
with 435NW-WH trim

Watts: 19.8  
Lumens: 685  
Luminaire LPW: 35



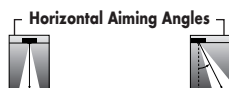
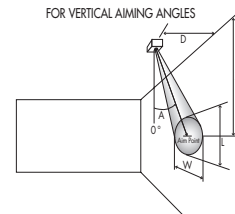
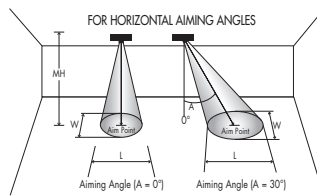
**Candlepower Distribution**

(Candelas)  
Degrees

Vertical	Candela
0°	177
5°	240
10°	427
15°	860
20°	1557
25°	2492
30°	3041
35°	2778
40°	1804
45°	661
50°	281
55°	55
60°	21
65°	8
70°	3
75°	3
80°	2
85°	0
90°	0

**CBCP** • Centerbeam candlepower  
**FC** • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



Beam Type	Beam Spread	CBCP	0°				30°			30°				40°				
			MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W
VNFL	21°	3041	4	190	1.6	1.6	123	2.1	1.8	2	95	3.5	3.5	1.6	202	2.4	2.0	1.2
			6	84	2.3	2.3	55	3.1	2.7	3	42	5.2	5.3	2.3	90	3.6	3.0	1.8
			8	48	3.1	3.1	31	4.2	3.6	4	24	6.9	7.0	3.1	50	4.8	4.0	2.4
			10	30	3.9	3.9	20	5.2	4.5	5	15	8.7	8.8	3.9	32	6.0	5.0	3.0
NFL	27°	3811	4	238	1.9	1.9	155	2.6	2.2	2	119	3.5	4.7	1.9	253	2.4	2.5	1.5
			6	106	2.9	2.9	69	3.9	3.3	3	53	5.2	7.0	2.9	112	3.6	3.8	2.2
			8	60	3.9	3.9	39	5.2	4.5	4	30	6.9	9.3	3.9	63	4.8	5.1	3.0
			10	38	4.8	4.8	25	6.6	5.6	5	19	8.7	11.7	4.8	40	6.0	6.4	3.7
FL	36°	2411	4	151	2.4	2.4	98	3.2	2.7	2	75	3.5	6.4	2.4	160	2.4	3.2	1.8
			6	67	3.5	3.5	43	4.8	4.1	3	33	5.2	9.5	3.5	71	3.6	4.9	2.7
			8	38	4.7	4.7	24	6.5	5.4	4	19	6.9	12.7	4.7	40	4.8	6.5	3.7
			10	24	5.9	5.9	16	8.1	6.8	5	12	8.7	15.9	5.9	26	6.0	8.1	4.6
			12	17	7.1	7.1	11	9.7	8.2	6	8	10.4	19.1	7.1	18	7.2	9.7	5.5

Fc/Lumen Multipliers: IC(9)43T - 0.70  
IC49T - 1.00  
TC(9)49T - 1.00  
Photometry is at 3000K CCT

