



# RECESSED DOWNLIGHT

## 3-1/4" SHOWER LIGHT

Non-IC Rated, 50W PAR20 or  
75W PAR16

### TC13N, 432N TRIM

#### PRODUCT DESCRIPTION

Recessed PAR20/PAR16 downlight luminaire with 3/4" Alzak deep cone aperture with tempered glass to protect lamp against water. Fixture has 55° visual cutoff to lamp and lamp image. Sealed Air-Loc housing ensures maximum energy savings and controls plenum sound transmission. Low profile non-IC housing is for use in non-insulated areas, or where insulation is spaced at least 3" from housing.

#### PRODUCT SPECIFICATIONS

**Reflector** .040" aluminum parabolic reflector in clear, gold, black, haze, or wheat haze Alzak finish provides 55° lamp and lamp image cut-off.

**Trims Style** Trim Ring, Self Flanged and Flush Mount reflectors utilize torsion spring retention for tight, secure fit to ceiling • Trim ring features beveled knife edge for clean ceiling interface • Self Flanged reflectors with polished or optional white painted flange • 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).

**Socket** Medium base porcelain socket with nickel plated copper screw shell.

**Lamp** One 50W PAR20 or 75W PAR16 lamp.

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

**Patented (US Patent 8,038,113) Pro-VI™ Bar Hanger System** With locking set screws, permits 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.

**Junction Box** Rated for 8 No. 12 AWG 90° C through branch circuit conductors and 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** Black steel plaster frame and housing painted for visually dark interior • V-Notch in plaster frame aids fixture alignment during installation • Patent pending Tru-Line™ Adjustment Mechanism 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: \_\_\_\_\_

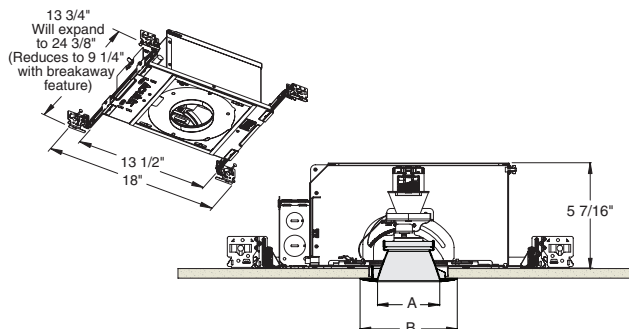
Fixture Type: \_\_\_\_\_

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

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



#### DIMENSIONS



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

	A	B
Trim Ring	3 1/4"	5"
Self Flanged	3 3/8"	4 5/8"
Flush Mount	3 3/8"	3 7/8"

#### Ordering Information

Housing, trim and accessories each ordered separately

Example: **TC13N**

Housing	Options
TC13N	CP Chicago Plenum

Example: **432NC-WH**

Trim/Description			
Trim Ring <sup>1</sup>	Self Flanged <sup>2</sup>	Flush Mount <sup>3</sup>	Description
<b>432NB-WH</b>	<b>432NB-SF</b>	<b>432NB-FM</b>	Black Cone
<b>432NC-WH</b>	<b>432NC-SF</b>	<b>432NC-FM</b>	Clear Cone
<b>432NG-WH</b>	<b>432NG-SF</b>	<b>432NG-FM</b>	Gold Cone
<b>432NHZ-SC</b>	-	-	Haze Cone
<b>432NHZ-WH</b>	<b>432NHZ-SF</b>	<b>432NHZ-FM</b>	Haze Cone, White Ring
<b>432NWHZ-ABZ</b>	-	-	Wheat Haze Cone
<b>432NWHZ-WH</b>	<b>432NWHZ-SF</b>	<b>432NWHZ-FM</b>	Wheat Haze Cone, White Ring

#### Flush Mount Adapters

<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

#### Misc. Accessories

<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

To order, specify catalog number.

<sup>1</sup>Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White.

<sup>2</sup>For self flanged reflector with optional white painted flange, replace "SF" suffix with "SFWH".

<sup>3</sup>Flush Mount trims must be used with Flush Mount Adapter, ordered separately.

Product specifications subject to change without notice.

**PHOTOMETRIC REPORT**

Catalog Number: TC13N (432NC-WH)

Test Number: PT01100406

Total Luminaire Efficiency: 72.3%

Luminaire Spacing Criteria: 0.53

Luminaire: Clear specular Alzak® lensed shower light trim.

Lamps: One 75PAR16/HAL/NFL30, rated at 900 total lumens.

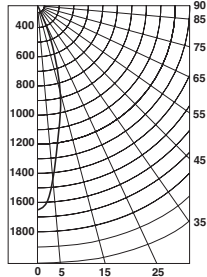
**Initial Footcandles**

Distance to Illuminated Plane (feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	46.0	20.2	3.6'
7'	33.8	14.8	4.2'
8'	25.9	11.4	4.8'
9'	20.5	9.0	5.4'
10'	16.6	7.3	6.0'
11'	13.7	6.0	6.7'
12'	11.5	5.0	7.3'
13'	9.8	4.3	7.9'
14'	8.5	3.7	8.5'
15'	7.4	3.2	9.1'

**AVERAGE INITIAL FOOTCANDLES**

Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	46	41	37
5' x 5'	29	26	23
6' x 6'	20	18	16
7' x 7'	16	15	13
8' x 8'	13	12	10
9' x 9'	10	9	8
10' x 10'	7	6	6
12' x 12'	5	5	4



**Candlepower Distribution (Candelas)**

Angle	Candela	Lumens
0°	1658	
5°	1516	145
15°	908	257
25°	370	171
35°	72	45
45°	28	22
55°	12	11
65°	0	0
75°	0	0
85°	0	0

**Luminance Data**

Ang in Deg	Footlamberts	Candela/M <sup>2</sup>
45	1863	6382
55	1001	3429
65	0	0
75	0	0
85	0	0

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	573	63.7	88.1
0-40°	618	68.7	95.0
0-60°	651	72.3	100.0
0-90°	651	72.3	100.0
90-180°	0	0.0	0.0
0-180°	651	72.3	100.0

**COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)**

Effective Floor Reflectance 20%

PCC	80				70				50				30				10				0				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30
0	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72							
1	83	81	79	78	81	79	78	77	76	75	74	74	73	72	71	71	70	69							
2	79	76	74	72	78	75	73	71	73	71	69	71	69	68	69	68	67	65							
3	76	72	69	67	75	71	69	66	69	67	65	68	66	64	66	65	63	62							
4	73	69	65	63	72	68	65	62	66	64	62	65	63	61	64	62	60	59							
5	70	65	62	59	69	65	61	59	63	61	58	62	60	58	61	59	57	57							
6	68	62	59	56	67	62	58	56	61	58	56	60	57	55	59	57	55	54							
7	65	60	56	53	64	59	56	53	58	55	53	58	55	53	57	54	53	52							
8	63	57	54	51	62	57	53	51	56	53	51	55	53	51	55	52	50	50							
9	61	55	51	49	60	55	51	49	54	51	49	53	51	49	53	50	48	48							
10	59	53	49	47	58	52	49	47	52	49	47	51	49	47	51	48	47	46							

