



RECESSED ADJUSTABLE 3-1/4" OPEN APERTURE Non-IC Rated 20W, 39W CMH MR16 TC943M, 438N TRIM

PRODUCT DESCRIPTION

Recessed adjustable Metal Halide MR16 luminaire with 3 1/4" angle-cut Alzak cone aperture and precision geared hot-aiming. Fixture has 50° visual cutoff to lamp and lamp image. Low profile non-IC housing is for use in non-insulated areas, or where insulation is spaced at least 3" from housing. Supplied with vertically adjustable mounting brackets that accept 1/2" conduit, "C" channel bar hangers, linear bar hangers or telescoping Real Nail bar hangers.

PRODUCT SPECIFICATIONS

Reflector .040" aluminum angle-cut reflector in clear, gold, black, haze, or wheat haze Alzak finish.

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).

Lens Lampholder accommodates up to two (2) 2" captive accessory lenses.

Socket GX10 twist lock socket with quick disconnect for simplified maintenance.

Lamp One 20W or 39W CMH MR16 lamp.

Adjustability Acu-Aim™ precision geared hot-aiming achieves 370° rotation, 45° tilt • Optimized center lamp beam optics translates lamp forward as it is aimed off nadir, insuring maximum light and low brightness • Black aiming mechanism with shield prevents visibility into fixture and preserves dark aperture • Shield hinges out of way to facilitate maintenance.

Ballast High Power Factor, electronic solid state ballast with less than 10% THD • Features transient and short circuit protection • Available in 120V or 277V.

Codes/Labels UL and cUL listed for through branch wiring, damp locations • Product thermally protected • Union made.

Mounting Bracket Rough-in section 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 (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.

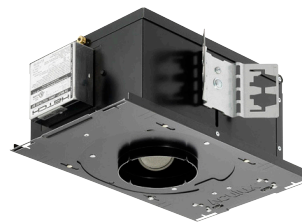
Ceiling Thickness 1/2" – 7/8" ceiling standard • For thicker ceilings, order CTA4N-125 (7/8"-1 1/4"), CTA4N-163 (1 1/4"-1 5/8") or CTA4N-200 (1 5/8"- 2") • CTA4N not required for wood, stone, or tile flush mount applications.

Project: _____

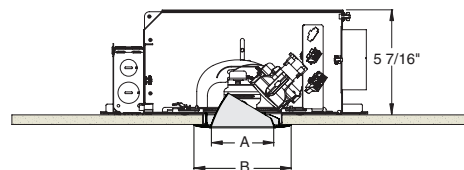
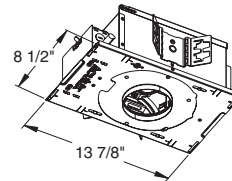
Fixture Type: _____

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"

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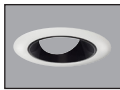


Ordering Information

Housing, trim and accessories each ordered separately

Example: **TC943M-MR16-20E1**

Housing	Wattage	Voltage	Options
TC943M-MR16	20 20W 39 39W	E1 120V E2 277V	CP Chicago Plenum

Example: **438NC-WH**

Trim/Description			
			
Trim Ring ¹	Self Flanged ²	Flush Mount ³	Description
438NB-WH	438NB-SF	438NB-FM	Black Cone
438NB-ABZ	-	-	Black Cone
438NB-SC	-	-	Black Cone
438NC-WH	438NC-SF	438NC-FM	Clear Cone
438NG-WH	438NG-SF	438NG-FM	Gold Cone
438NHZ-SC	-	-	Haze Cone
438NHZ-WH	438NHZ-SF	438NHZ-FM	Haze Cone, White Ring
438NWHZ-ABZ	-	-	Wheat Haze Cone
438NWHZ-WH	438NWHZ-SF	438NWHZ-FM	Wheat Haze Cone, White Ring

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

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

³Flush Mount trims must be used with Flush Mount Adapter, ordered separately.

Product specifications subject to change without notice.

Flush Mount Adapters

FMA4	Description
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
T741	Med. Pink Color Filter	T7405	Yellow Dichroic Lens
T742	Warm Red Color Filter	T7406	Magenta Dichroic Lens
T743	Daylight Blue Color Filter	T7411	Blue Green Dichroic Lens
T744	Med. Blue Color Filter	T7416	Daylight Blue Correction Lens
T745	Med. Amber Color Filter	T7420	Diffuse Spread Lens
T746	Med. Green Color Filter	T7422	UV Filter Lens
T7401	Red Dichroic Lens	T7477	Prismatic Lens
T7403	Med. Green Dichroic Lens	T7478	Linear Spread Lens
T7404	Med. Blue Dichroic Lens	T7459BL	Hexcell Louver

Misc. Accessories

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

To order, specify catalog number.



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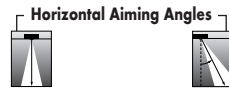
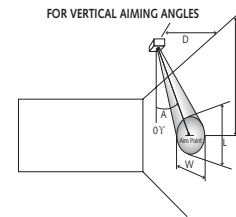
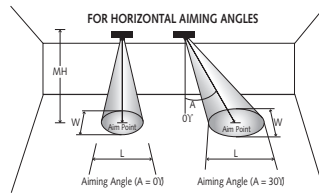
3-1/4" OPEN APERTURE



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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°).



Lamp	Beam Type	Beam Spread°	Rated Life	CBCP	0°			30°			30°			45°						
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W
20W MR16 Ceramic Metal Halide 	SP	12°	12000	9000	10	90	2.1	2.1	58	2.8	2.4	4	70	6.9	3.5	1.7	199	4.0	1.7	1.2
					12	63	2.5	2.5	41	3.4	2.9	6	31	10.4	5.2	2.5	88	6.0	2.6	1.8
					14	46	2.9	2.9	30	3.9	3.4	8	18	13.9	7.0	3.4	50	8.0	3.4	2.4
					16	35	3.4	3.4	23	4.5	3.9	10	11	17.3	8.7	4.2	32	10.0	4.3	3.0
					18	28	3.8	3.8	18	5.1	4.4	12	8	20.8	10.4	5.0	22	12.0	5.1	3.6
	FL	25°	12000	2900	8	45	3.5	3.5	29	4.8	4.1	2	91	3.5	4.2	1.8	256	2.0	1.9	1.3
					10	29	4.4	4.4	19	6.0	5.1	4	23	6.9	8.3	3.5	64	4.0	3.7	2.5
					12	20	5.3	5.3	13	7.2	6.1	6	10	10.4	12.5	5.3	28	6.0	5.6	3.8
	WFL	40°	12000	1500	14	15	6.2	6.2	10	8.4	7.2	8	6	13.9	16.6	7.1	16	8.0	7.5	5.0
					16	11	7.1	7.1	7	9.6	8.2	10	4	17.3	20.8	8.9	10	10.0	9.3	6.3
					8	23	5.8	5.8	15	8.1	6.7	2	47	3.5	9.7	2.9	133	2.0	3.4	2.1
					10	15	7.3	7.3	10	10.2	8.4	3	21	5.2	14.5	4.4	59	3.0	5.0	3.1
39W MR16 Ceramic Metal Halide 	SP	12°	12000	16000	10	160	2.1	2.1	104	2.8	2.4	4	125	6.9	3.5	1.7	354	4.0	1.7	1.2
					12	111	2.5	2.5	72	3.4	2.9	6	56	10.4	5.2	2.5	157	6.0	2.6	1.8
					14	82	2.9	2.9	53	3.9	3.4	8	31	13.9	7.0	3.4	88	8.0	3.4	2.4
					16	63	3.4	3.4	41	4.5	3.9	10	20	17.3	8.7	4.2	57	10.0	4.3	3.0
					18	49	3.8	3.8	32	5.1	4.4	12	14	20.8	10.4	5.0	39	12.0	5.1	3.6
	FL	25°	12000	5500	8	86	3.5	3.5	56	4.8	4.1	2	172	3.5	4.2	1.8	486	2.0	1.9	1.3
					10	55	4.4	4.4	36	6.0	5.1	4	43	6.9	8.3	3.5	122	4.0	3.7	2.5
					12	38	5.3	5.3	25	7.2	6.1	6	19	10.4	12.5	5.3	54	6.0	5.6	3.8
	WFL	40°	12000	3000	14	28	6.2	6.2	18	8.4	7.2	8	11	13.9	16.6	7.1	30	8.0	7.5	5.0
					16	21	7.1	7.1	14	9.6	8.2	10	7	17.3	20.8	8.9	19	10.0	9.3	6.3
					8	47	5.8	5.8	30	8.1	6.7	2	94	3.5	9.7	2.9	265	2.0	3.4	2.1
					10	30	7.3	7.3	19	10.2	8.4	3	42	5.2	14.5	4.4	118	3.0	5.0	3.1
WFL	40°	12000	3000	12	21	8.7	8.7	14	12.2	10.1	4	23	6.9	19.3	5.8	66	4.0	6.7	4.1	
				14	15	10.2	10.2	10	14.2	11.8	5	15	8.7	24.2	7.3	42	5.0	8.4	5.1	
				16	12	11.6	11.6	8	16.2	13.4	6	10	10.4	** 8.7	29	6.0	10.1	6.2		
				6	10	10.4	** 8.7													

The beam spread in degrees and the beam "L" and "W" in the following tables are computed at 50% of centerbeam candlepower and represent areas of "effective illumination."

**Due to steep aiming angle, length of beam extends beyond 25'. Each angle is measured from 0° vertical.

