



**PRODUCT DESCRIPTION**

Recessed adjustable metal halide MR16 luminaire with 3 1/4" square aperture, angle-cut die cast reflector and precision geared hot-aiming. 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** Die cast, angle-cut, parabolic reflector maintains low glare and tight corners • Available in haze, black haze, wheat haze, or white finishes.

**Trims Style** Self Flanged and Flush Mount reflectors utilize precision wound double torsion springs for tight, secure fit to ceiling • Flange is same finish as reflector unless optional painted white flange is specified • For flush mount installations in drywall ceilings use the FMSQ4 flush mount adapter • For flush mount installations in wood, stone, or tile ceilings the FMSQ4-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 and +/- 45° aperture rotation aids fixture alignment after installation, prior to drywall.

**Ceiling Thickness** 1/2" - 7/8" ceiling standard • For thicker ceilings, order CTA4SQ-125 (7/8"-1 1/4"), CTA4SQ-163 (1 1/4"-1 5/8") or CTA4SQ-200 (1 5/8" - 2") • CTA4SQ not required for wood, stone, or tile flush mount applications.

**RECESSED ADJUSTABLE**

3-1/4" OPEN APERTURE

Non-IC Rated, 20W, 39W CMH MR16

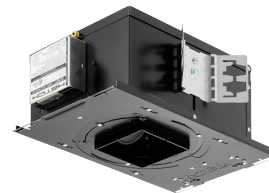
**TC943MSQ, 438SQ TRIM**

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

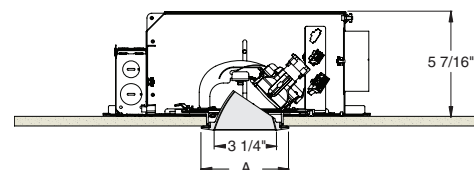
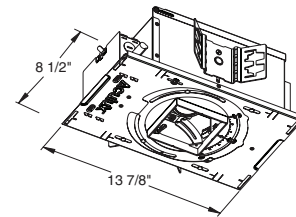
Fixture Type: \_\_\_\_\_

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

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



**DIMENSIONS**



4 1/8" CEILING CUTOUT  
(REFER TO INSTRUCTION SHEET FOR  
FLUSH MOUNT CEILING CUTOUT)

	A
Self Flanged	4 1/2"
Flush Mount	3 5/8"

# RECESSED ADJUSTABLE

3-1/4" OPEN APERTURE

Non-IC Rated, 20W, 39W CMH MR16

## TC943MSQ, 438SQ TRIM

### Ordering Information

Housing, trim and accessories each ordered separately

Example: **TC943MSQ-MR16-20E1**

Housing	Wattage	Voltage	Options
TC943MSQ-MR16	20 20W 39 39W	E1 120V E2 277V	CP Chicago Plenum

Example: **438SQW-SF**

Trim/Description



Self Flanged <sup>1</sup>	Flush Mount <sup>2</sup>	Description
<b>438SQBHZ-SF</b>	<b>438SQBHZ-FM</b>	Black Haze Reflector
<b>438SQHZ-SF</b>	<b>438SQHZ-FM</b>	Clear Reflector
<b>438SQW-SF</b>	<b>438SQW-FM</b>	White Reflector
<b>438SQWHZ-SF</b>	<b>438SQWHZ-FM</b>	Wheat Haze Reflector

<sup>1</sup>For self flanged reflector with optional white painted flange, replace "SF" suffix with "SFWH".

<sup>2</sup>Flush Mount trims must be used with Flush Mount Adapter, ordered separately.

Product specifications subject to change without notice.

### Flush Mount Adapters

FMASQ4	Drywall Ceiling Adapter
<b>FMASQ4-SC100-WH</b>	Wood, Stone, Tile, 1/2"-1" Thick Ceiling, Adapter, White
<b>FMASQ4-SC100-BL</b>	Wood, Stone, Tile, 1/2"-1" Thick Ceiling, Adapter, Black
<b>FMASQ4-SC138-WH</b>	Wood, Stone, Tile, 1"-1 3/8" Thick Ceiling, Adapter, White
<b>FMASQ4-SC138-BL</b>	Wood, Stone, Tile, 1"-1 3/8" Thick Ceiling, Adapter, Black
<b>FMASQ4-SC175-WH</b>	Wood, Stone, Tile, 1 3/8"-1 3/4" Thick Ceiling, Adapter, White
<b>FMASQ4-SC175-BL</b>	Wood, Stone, Tile, 1 3/8"-1 3/4" Thick Ceiling, Adapter, Black

### Optical Accessories

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

### Misc. Accessories

<b>CTA45Q-125</b>	1 1/4" Thick Ceiling Adapter
<b>CTA45Q-163</b>	1 5/8" Thick Ceiling Adapter
<b>CTA45Q-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

To order, specify catalog number.



# RECESSED ADJUSTABLE

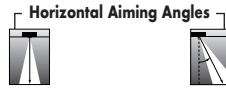
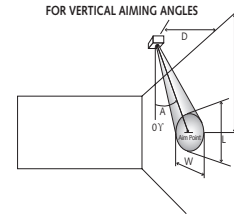
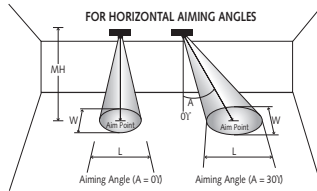
3-1/4" OPEN APERTURE



Non-IC Rated, 20W, 39W CMH MR16

**TC943MSQ, 438SQ TRIM**

**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
<b>20W MR16</b> 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
	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
	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
	WFL	40°	12000	1500					8	23	5.8	5.8	15	8.1	6.7	2	47	3.5	9.7	2.9
					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
12					10	8.7	8.7	7	12.2	10.1	4	12	6.9	19.3	5.8	33	4.0	6.7	4.1	
14					8	10.2	10.2	5	14.2	11.8	5	8	8.7	24.2	7.3	21	5.0	8.4	5.1	
16					6	11.6	11.6	4	16.2	13.4	6	5	10.4	**	8.7	15	6.0	10.1	6.2	
<b>39W MR16</b> 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
	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
					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
					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
					WFL	40°	12000	3000	8	47	5.8	5.8	30	8.1	6.7	2	94	3.5	9.7	2.9
	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
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	

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.

