



RECESSED DOWNLIGHT

1-3/4" LENSED REGRESSED PINHOLE APERTURE

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



TC943MSQ, 4302SQ TRIM

PRODUCT DESCRIPTION

Recessed metal halide MR16 downlight luminaire with 1 3/4" square regressed pinhole featuring stippled uniformity lens on the aperture. 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 parabolic reflector in black Alzak finish shields housing interior.

Trims Style Die cast Self Flanged and Flush Mount trims utilize precision wound double torsion springs for tight, secure fit to ceiling

- Flush mount trim creates a truly trimless aperture
- For flush mount installations in drywall ceilings use the FMASQ4 flush mount adapter
- For flush mount installations in wood, stone, or tile ceilings the FMASQ4-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.

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, wet 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

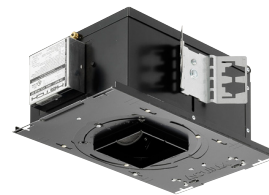
- For thicker ceilings, order CTA4SQ-125 (7/8"-1 1/4"), CTA4SQ-163 (1 1/4"-1 5/8") or CTA4SQ-200 (1 5/8" - 2")
- CTA4SQ not required for wood, stone, or tile flush mount applications.

Project: _____

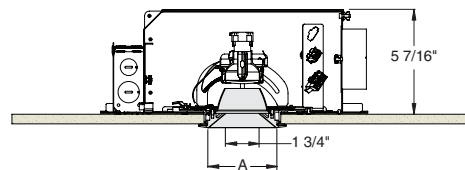
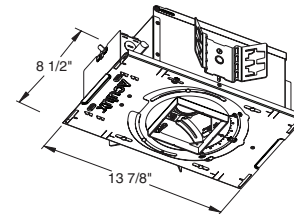
Fixture Type: _____

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"

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Ordering Information

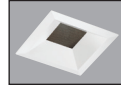
Housing, trim and accessories each ordered separately

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

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

Example: **4302SQ-WH-FM**

Trim/Description



Self Flanged	Flush Mount ¹	Description
4302SQ-WH	4302SQ-WH-FM	White Trim
4302SQ-BL	4302SQ-BL-FM	Black Trim

¹Flush Mount trims must be used with Flush Mount Adapter, ordered separately.
Product specifications subject to change without notice.

Flush Mount Adapters

FMSQ4	Description
FMSQ4-SC100-WH	Wood, Stone, Tile, 1/2"-1" Thick Ceiling, Adapter, White
FMSQ4-SC100-BL	Wood, Stone, Tile, 1/2"-1" Thick Ceiling, Adapter, Black
FMSQ4-SC138-WH	Wood, Stone, Tile, 1"-1 3/8" Thick Ceiling, Adapter, White
FMSQ4-SC138-BL	Wood, Stone, Tile, 1"-1 3/8" Thick Ceiling, Adapter, Black
FMSQ4-SC175-WH	Wood, Stone, Tile, 1 3/8"-1 3/4" Thick Ceiling, Adapter, White
FMSQ4-SC175-BL	Wood, Stone, Tile, 1 3/8"-1 3/4" 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

CTA45Q-125	1 1/4" Thick Ceiling Adapter
CTA45Q-163	1 5/8" Thick Ceiling Adapter
CTA45Q-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.



PHOTOMETRIC REPORT

Catalog Number: TC943MSQ (4302SQWH)

Test Number: PT11110903

Total Luminaire Efficiency: 57.1%

Luminaire Spacing Criteria: 0.24

Luminaire: 1 3/4" square recessed pinhole trim. Stippled Uniformity lens.

Lamps: One CMH39MR16/930/SP, rated at 2200 total lumens.

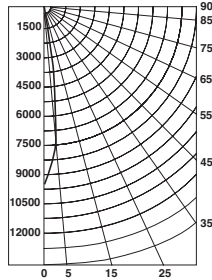
Initial Footcandles

Distance to Illuminated Plane (feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	259.1	129.5	1.6'
7'	190.3	95.2	1.8'
8'	145.7	72.9	2.1'
9'	115.1	57.6	2.4'
10'	93.3	46.6	2.6'
11'	77.1	38.5	2.9'
12'	64.8	32.4	3.2'
13'	55.2	27.6	3.4'
14'	47.6	23.8	3.7'
15'	41.4	20.7	3.9'

AVERAGE INITIAL FOOTCANDLES

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
5' x 5'	89	81	76
6' x 6'	57	52	48
7' x 7'	40	36	34
8' x 8'	32	29	27
9' x 9'	25	23	22
10' x 10'	19	18	16
11' x 11'	14	13	12
12' x 12'	10	9	8



Candlepower Distribution (Candelas)

Angle	Candela	Lumens
0°	9326	
5°	5570	615
15°	1259	388
25°	256	133
35°	109	79
45°	22	32
55°	4	7
65°	1	2
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M ²
45	1151	3944
55	279	955
65	87	299
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	1136	51.6	90.5
0-40°	1215	55.2	96.8
0-60°	1253	57.0	99.8
0-90°	1255	57.1	100.0
90-180°	0	0.0	0.0
0-180°	1255	57.1	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	0						
0	68	68	68	68	66	66	66	66	63	63	63	61	61	61	58	58	58	57
1	66	65	64	63	64	63	62	62	61	60	60	59	58	58	57	57	56	55
2	64	62	60	59	63	61	59	58	59	58	57	57	56	56	56	55	54	54
3	62	59	57	56	61	58	57	55	57	56	54	56	55	54	55	54	53	52
4	60	57	55	53	59	56	54	53	55	54	52	54	53	52	53	52	51	51
5	58	55	53	51	58	55	53	51	54	52	51	53	51	50	52	51	50	49
6	57	53	51	50	56	53	51	49	52	50	49	52	50	49	51	50	49	48
7	55	52	50	48	55	52	49	48	51	49	48	50	49	48	50	48	47	47
8	54	51	48	47	54	50	48	47	50	48	47	49	48	46	49	47	46	46
9	53	49	47	46	52	49	47	46	49	47	45	48	47	45	48	46	45	45
10	52	48	46	45	51	48	46	45	48	46	44	47	46	44	47	45	44	44

