



# RECESSED DOWNLIGHT

## 1-3/4" REGRESSED PINHOLE APERTURE

Non-IC Rated, 20W, 39W CMH MR16  
**TC943MSQ, 4307SQ TRIM**

### PRODUCT DESCRIPTION

Recessed metal halide MR16 downlight luminaire with 1 3/4" square regressed pinhole 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, 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.

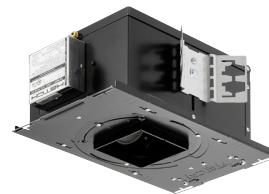
**Ceiling Thickness** 1/2" – 7/8" ceiling standard • For thicker ceilings, order CTA4SQ-125 (7/8"-1 1/4"), CTA4SQ-163 (1 1/4"-1 5/8") or CTA4SQ-200 (1 5/8" – 2") • CTA4SQ not required for wood, stone, or tile flush mount applications.

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

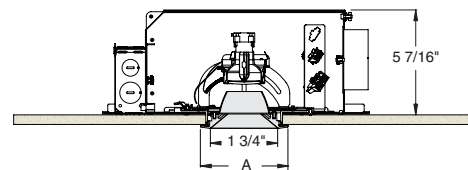
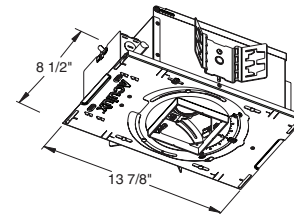
Fixture Type: \_\_\_\_\_

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 DOWNLIGHT

1-3/4" REGRESSED PINHOLE APERTURE

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

## TC943MSQ, 4307SQ TRIM

### Ordering Information

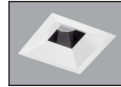
Housing, trim and accessories each ordered separately

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

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

Example: **4307SQ-WH-FM**

Trim/Description



**Self Flanged**



**Flush Mount<sup>1</sup>**

**Description**

<b>4307SQ-WH</b>	<b>4307SQ-WH-FM</b>	White Trim
<b>4307SQ-BL</b>	<b>4307SQ-BL-FM</b>	Black Trim

<sup>1</sup>Flush Mount trims must be used with Flush Mount Adapter, ordered separately.

Product specifications subject to change without notice.

### Flush Mount Adapters

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



**PHOTOMETRIC REPORT**

Catalog Number: TC943MSQ (4307SQ-WH)

Test Number: PT01101203

Total Luminaire Efficiency: 65.1%

Luminaire Spacing Criteria: 0.23

Luminaire: 1 3/4" square recessed pinhole trim. Open aperture.

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

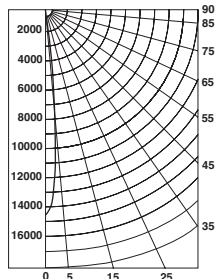
**Initial Footcandles**

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	408.2	201.1	1.2'
7'	299.9	147.8	1.4'
8'	229.6	113.1	1.6'
9'	181.4	89.4	1.8'
10'	147.0	72.4	2.0'
11'	121.5	59.8	2.2'
12'	102.1	50.3	2.4'
13'	87.0	42.8	2.6'
14'	75.0	36.9	2.8'
15'	65.3	32.2	3.0'

**AVERAGE INITIAL FOOTCANDLES**

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
5' x 5'	102	94	88
6' x 6'	65	60	56
7' x 7'	45	42	39
8' x 8'	37	34	32
9' x 9'	29	27	25
10' x 10'	22	20	19
11' x 11'	16	15	14
12' x 12'	11	10	10



**Candlepower Distribution (Candelas)**

Angle	Candela	Lumens
0°	14697	
5°	8653	826
15°	1376	390
25°	208	96
35°	129	81
45°	50	38
55°	0	0
65°	0	0
75°	0	0
85°	0	0

**Luminance Data**

Ang in Deg	Footlamberts	Candela/M <sup>2</sup>
45	10341	35432
55	0	0
65	0	0
75	0	0
85	0	0

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	1313	59.7	91.7
0-40°	1394	63.3	97.3
0-60°	1432	65.1	100.0
0-90°	1432	65.1	100.0
90-180°	0	0.0	0.0
0-180°	1432	65.1	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	50	30	10	50	30	10	50	30	10	
PW 0	77	77	77	77	76	76	76	76	72	72	72	69	69	69	66	66	66	66	66	66	65
1	75	74	73	72	74	73	72	71	70	69	69	68	67	66	65	65	65	65	65	65	64
2	73	71	69	68	72	70	68	67	68	67	66	66	65	64	64	64	63	62	62	62	62
3	71	68	66	65	70	68	66	64	66	64	63	64	63	62	63	62	61	60	60	60	60
4	69	66	64	62	68	65	63	62	64	63	61	63	62	60	62	61	60	59	59	59	59
5	68	64	62	60	67	64	62	60	63	61	59	62	60	59	61	60	58	58	58	58	58
6	66	63	60	58	65	62	60	58	61	59	58	61	59	58	60	58	57	57	57	57	57
7	65	61	59	57	64	61	58	57	60	58	57	59	58	56	59	57	56	56	56	56	56
8	63	60	57	56	63	59	57	56	59	57	55	58	57	55	58	56	55	55	55	55	55
9	62	58	56	55	62	58	56	55	58	56	54	57	56	54	57	55	54	54	54	54	54
10	61	57	55	54	61	57	55	54	57	55	53	56	55	53	56	54	53	53	53	53	53

