



# RECESSED DOWNLIGHT

1-1/4" LENSED  
PINHOLE APERTURE

Non-IC Rated, 75W MR16



**TC43SQ, 4332SQ TRIM**

## PRODUCT DESCRIPTION

Recessed MR16 downlight luminaire with 1 1/4" square pinhole featuring stippled uniformity lens on the aperture. Fixture has 50° visual cutoff to lamp and lamp image. Sealed Air-Loc housing eliminates leak-paths to ensure maximum energy savings and controls plenum sound transmission. Low profile non-IC housing is ideal for space restricted plenum applications and 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 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  
 • 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 three (3) 2" captive accessory lenses • Supplied with stippled uniformity lens.

**Socket** Ceramic bi-pin socket with double blade nickel alloy contacts  
 • Quick disconnect for simplified maintenance.

**Lamp** One 75W MR16 lamp.

**Transformer** 120V High efficiency (>90%) dual tap magnetic, toroidal transformer has a boost tap to compensate for dimmer losses, improving color temperature and lumen output • Potted to eliminate noise and vibration • High efficiency (>94%), high power factor electronic transformer also available.

**Dimming** May be dimmed using dimmers specifically designed for low voltage magnetic or electronic transformers; consult factory or dimmer manufacturer for additional information.

**Codes/Labels** UL and cUL listed for through branch wiring, wet locations • Meets energy code Air Leakage requirements per ASTM E283 • Product thermally protected against improper use of lamps  
 • 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 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: \_\_\_\_\_

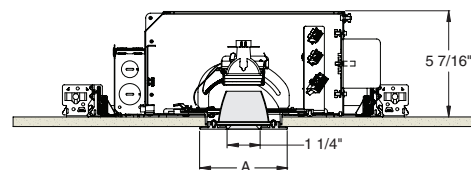
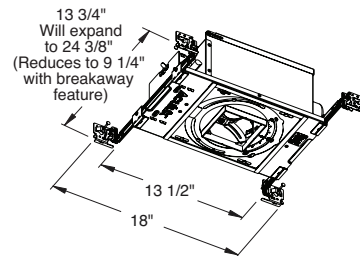
Fixture Type: \_\_\_\_\_

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"

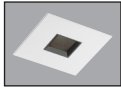
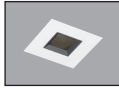
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Non-IC Rated, 75W MR16

**TC43SQ, 4332SQ TRIM**

**Ordering Information** Housing, trim and accessories each ordered separately

Example: <b>TC43SQ-E1</b>			Example: <b>4332SQ-WH</b>		
Housing	Transformer	Options	Trim/Description		
TC43SQ	Blank E1 120V Magnetic 120V Electronic	CP Chicago Plenum	 		
			<b>Self Flanged</b>	<b>Flush Mount<sup>1</sup></b>	<b>Description</b>
			<b>4332SQ-WH</b>	<b>4332SQ-WH-FM</b>	White Trim
			<b>4332SQ-BL</b>	<b>4332SQ-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**

<b>FMSQ4</b>	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

To order, specify catalog number.



**PHOTOMETRIC REPORT**

Catalog Number: TC43SQ (4332SQ-WH)  
 Test Number: PT11110802R  
 Total Luminaire Efficiency: 45.3%  
 Luminaire Spacing Criteria: 0.32  
 Luminaire: 1 1/4" square pinhole trim. Stippled Uniformity lens.  
 Lamps: One 50MR16/1R/SP10/C, rated at 1200 total lumens.

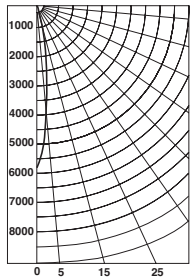
**Initial Footcandles**

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	161.8	80.9	1.6'
7'	118.9	59.4	1.9'
8'	91.0	45.5	2.1'
9'	71.9	36.0	2.4'
10'	58.3	29.1	2.7'
11'	48.1	24.1	2.9'
12'	40.5	20.2	3.2'
13'	34.5	17.2	3.5'
14'	29.7	14.9	3.7'
15'	25.9	12.9	4.0'

**AVERAGE INITIAL FOOTCANDLES**

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	39	36	35
5' x 5'	25	23	22
6' x 6'	17	16	15
7' x 7'	14	13	12
9' x 8'	11	10	10
9' x 9'	8	8	8
10' x 10'	6	6	6
12' x 12'	4	4	4



**Candlepower Distribution (Candelas)**

Angle	Candela	Lumens
0°	5874	
5°	4798	318
15°	732	190
25°	63	32
35°	7	4
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

**Luminance Data**

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

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	539	44.9	99.2
0-40°	544	45.3	100.0
0-60°	544	45.3	100.0
0-90°	544	45.3	100.0
90-180°	0	0.0	0.0
0-180°	544	45.3	100.0

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

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0		
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	54	54	54	54	53	53	53	53	50	50	50	48	48	48	46	46	46	45
1	52	52	51	50	51	51	50	49	49	48	48	47	47	47	46	45	45	44
2	51	50	49	48	50	49	48	47	48	47	46	46	46	45	45	44	44	44
3	50	48	47	46	49	48	46	45	47	46	45	46	45	44	45	44	43	43
4	49	47	45	44	48	46	45	44	46	44	44	45	44	43	44	43	43	42
5	48	46	44	43	47	45	44	43	45	43	43	44	43	42	43	43	42	41
6	47	45	43	42	46	44	43	42	44	43	42	43	42	41	43	42	41	41
7	46	44	42	41	46	43	42	41	43	42	41	43	42	41	42	41	41	40
8	45	43	41	40	45	43	41	40	42	41	40	42	41	40	42	41	40	40
9	44	42	41	40	44	42	41	40	42	40	40	41	40	39	41	40	39	39
10	44	41	40	39	43	41	40	39	41	40	39	41	40	39	40	40	39	38

**PHOTOMETRIC REPORT**

Catalog Number: TC43SQ (4332SQ-WH)  
 Test Number: PT11110804R  
 Total Luminaire Efficiency: 45.0%  
 Luminaire Spacing Criteria: 0.26  
 Luminaire: 1 1/4" square pinhole trim. Stippled Uniformity lens.  
 Lamps: One Q71MR16C/NSP15, rated at 1200 total lumens.

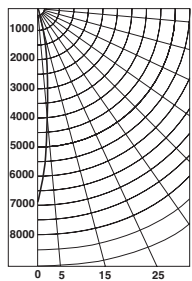
**Initial Footcandles**

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	191.9	95.9	1.5'
7'	141.0	70.5	1.7'
8'	107.9	54.0	2.0'
9'	85.3	42.6	2.2'
10'	69.1	34.5	2.5'
11'	57.1	28.5	2.7'
12'	48.0	24.0	3.0'
13'	40.9	20.4	3.2'
14'	35.2	17.6	3.5'
15'	30.7	15.4	3.7'

**AVERAGE INITIAL FOOTCANDLES**

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	38	36	35
5' x 5'	24	23	22
6' x 6'	17	16	15
7' x 7'	14	13	12
9' x 8'	11	10	10
9' x 9'	8	8	8
10' x 10'	6	6	6
12' x 12'	4	4	4



**Candlepower Distribution (Candelas)**

Angle	Candela	Lumens
0°	6907	
5°	4704	350
15°	519	164
25°	36	22
35°	6	4
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

**Luminance Data**

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

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	536	44.7	99.3
0-40°	540	45.0	100.0
0-60°	540	45.0	100.0
0-90°	540	45.0	100.0
90-180°	0	0.0	0.0
0-180°	540	45.0	100.0

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

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0		
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	54	54	54	54	52	52	52	52	50	50	50	48	48	48	46	46	46	45
1	52	51	51	50	51	50	50	49	49	48	48	47	47	46	46	45	45	44
2	51	50	49	48	50	49	48	47	48	47	46	46	46	45	45	44	44	44
3	50	48	47	46	49	48	46	46	47	46	45	46	45	44	45	44	44	43
4	49	47	46	45	48	46	45	44	46	45	44	45	44	43	44	43	43	42
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