



PRODUCT DESCRIPTION

Recessed MR16 downlight luminaire with 1 3/4" square regressed pinhole featuring stippled uniformity lens on the aperture. 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 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 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

- 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 DOWNLIGHT

1-3/4" LENSED REGRESSED PINHOLE APERTURE

Non-IC Rated, 75W MR16



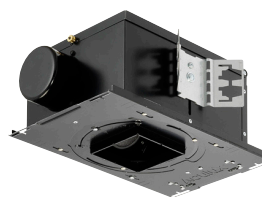
TC943SQ, 4302SQ TRIM

Project: _____

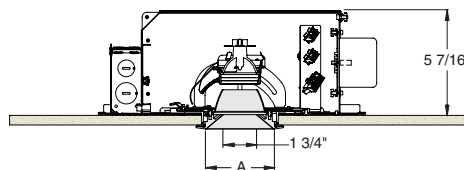
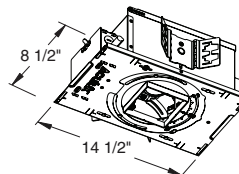
Fixture Type: _____

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"

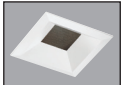
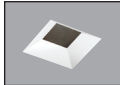
RECESSED DOWNLIGHT

1-3/4" LENSED REGRESSED PINHOLE APERTURE

Non-IC Rated, 75W MR16

TC943SQ, 4302SQ TRIM

Ordering Information Housing, trim and accessories each ordered separately

Example: TC943SQ-V			Example: 4302SQ-WH-FM		
Housing	Transformer	Options	Trim/Description		
TC943SQ	Blank 120V Magnetic V 277V Magnetic E1 120V Electronic E2 277V Electronic	CP Chicago Plenum			
			Self Flanged	Flush Mount¹	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

FMASQ4	Drywall Ceiling Adapter
FMASQ4-SC100-WH	Wood, Stone, Tile, 1/2"-1" Thick Ceiling, Adapter, White
FMASQ4-SC100-BL	Wood, Stone, Tile, 1/2"-1" Thick Ceiling, Adapter, Black
FMASQ4-SC138-WH	Wood, Stone, Tile, 1"-1 3/8" Thick Ceiling, Adapter, White
FMASQ4-SC138-BL	Wood, Stone, Tile, 1"-1 3/8" Thick Ceiling, Adapter, Black
FMASQ4-SC175-WH	Wood, Stone, Tile, 1 3/8"-1 3/4" Thick Ceiling, Adapter, White
FMASQ4-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: TC943SQ (4302SQ-WH)

Test Number: PT11110801R

Total Luminaire Efficiency: 58.0%

Luminaire Spacing Criteria: 0.30

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

Lamps: One 50MR16/IR/SP10/C, rated at 1200 total lumens.

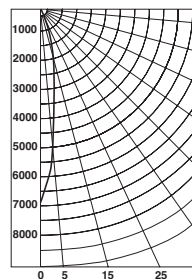
Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	193.0	96.5	1.4'
7'	141.8	70.9	1.7'
8'	108.5	54.3	1.9'
9'	85.8	42.9	2.2'
10'	69.5	34.7	2.4'
11'	57.4	28.7	2.6'
12'	48.2	24.1	2.9'
13'	41.1	20.6	3.1'
14'	35.4	17.7	3.4'
15'	30.9	15.4	3.6'

AVERAGE INITIAL FOOTCANDLES

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	50	46	43
5' x 5'	32	29	27
6' x 6'	22	20	19
7' x 7'	18	16	15
9' x 8'	14	13	12
9' x 9'	11	10	9
10' x 10'	8	7	7
12' x 12'	6	5	5



Candlepower Distribution (Candelas)

Angle	Candela	Lumens
0°	6946	
5°	5620	369
15°	813	233
25°	136	69
35°	22	19
45°	4	5
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M ²
45	235	804
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	671	55.9	96.5
0-40°	690	57.5	99.2
0-60°	696	58.0	100.0
0-90°	696	58.0	100.0
90-180°	0	0.0	0.0
0-180°	696	58.0	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	0				
0	69	69	69	67	67	67	67	64	64	64	62	62	62	59	59	59	58
1	67	66	65	64	66	65	64	63	62	62	61	60	60	59	58	58	57
2	65	63	62	60	64	62	61	60	61	59	58	59	58	57	57	56	55
3	63	61	59	58	62	60	59	57	59	57	56	58	56	56	55	55	54
4	62	59	57	56	61	58	57	55	57	56	55	56	55	54	55	54	53
5	60	57	55	54	60	57	55	54	56	54	53	55	54	53	54	53	52
6	59	56	54	52	58	55	54	52	55	53	52	54	53	51	53	52	51
7	58	54	52	51	57	54	52	51	54	52	51	53	51	50	52	51	50
8	56	53	51	50	56	53	51	50	52	51	50	52	50	49	52	50	49
9	55	52	50	49	55	52	50	49	51	50	49	51	50	48	51	49	48
10	54	51	49	48	54	51	49	48	51	49	48	50	49	48	50	48	47

PHOTOMETRIC REPORT

Catalog Number: TC943SQ (4302SQ-WH)

Test Number: PT11110803R

Total Luminaire Efficiency: 63.4%

Luminaire Spacing Criteria: 0.30

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

Lamps: One Q71MR16C/NSP15, rated at 1200 total lumens.

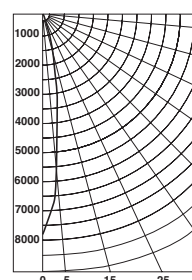
Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	216.2	108.1	1.5'
7'	158.8	79.4	1.7'
8'	121.6	60.8	2.0'
9'	96.1	48.0	2.2'
10'	77.8	38.9	2.5'
11'	64.3	32.2	2.7'
12'	54.0	27.0	3.0'
13'	46.2	23.0	3.2'
14'	39.7	19.9	3.5'
15'	34.6	17.3	3.7'

AVERAGE INITIAL FOOTCANDLES

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	54	50	47
5' x 5'	35	32	30
6' x 6'	24	22	21
7' x 7'	19	18	17
9' x 8'	15	14	13
9' x 9'	12	11	10
10' x 10'	9	8	8
12' x 12'	6	6	5



Candlepower Distribution (Candelas)

Angle	Candela	Lumens
0°	7782	
5°	6313	425
15°	769	261
25°	76	52
35°	16	14
45°	6	6
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M ²
45	312	1070
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	739	61.6	97.1
0-40°	752	62.7	98.9
0-60°	760	63.4	100.0
0-90°	761	63.4	100.0
90-180°	0	0.0	0.0
0-180°	761	63.4	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	0					
0	75	75	75	75	74	74	74	74	70	70	70	67	67	67	65	65	65	63
1	73	72	71	70	72	71	70	69	68	68	67	66	65	65	64	63	63	62
2	71	69	68	66	70	68	67	66	66	65	64	65	64	63	63	62	61	
3	70	67	65	63	68	66	64	63	65	63	62	63	62	61	62	61	60	
4	68	65	63	61	67	65	62	61	63	62	60	62	61	60	61	60	59	
5	66	63	61	59	66	63	61	59	62	60	59	61	59	58	60	59	58	
6	65	62	59	58	64	61	59	58	60	59	57	60	58	57	59	58	57	
7	64	60	58	57	63	60	58	56	59	57	56	59	57	56	58	57	56	
8	62	59	57	55	62	59	57	55	58	56	55	58	56	55	57	56	55	
9	61	58	56	54	61	58	56	54	57	55	54	57	55	54	56	55	54	
10	60	57	55	53	60	57	55	53	56	54	53	56	54	53	55	54	53	

