



**PRODUCT DESCRIPTION**

Recessed MR16 downlight luminaire with 1 3/4" regressed pinhole featuring stippled uniformity lens on the aperture protects lamp from water. 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 Trim Ring and Flush Mount trims utilize torsion spring retention for tight, secure fit to ceiling • Flush Mount trim creates a truly trimless aperture • For flush mount installations in drywall ceilings use the FMA4 flush mount adapter • For flush mount installations in wood, stone, or tile ceilings the FMA4-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** 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 • 120V or 277V 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 aids fixture alignment after installation, prior to drywall.

**Ceiling Thickness** 1/2" – 7/8" ceiling standard • For thicker ceilings, order CTA4N-125 (7/8"-1 1/4"), CTA4N-163 (1 1/4"-1 5/8") or CTA4N-200 (1 5/8"– 2") • CTA4N not required for wood, stone, or tile flush mount applications.

**RECESSED DOWNLIGHT**  
1-3/4" LENSED REGRESSED  
PINHOLE APERTURE

Non-IC Rated, 75W MR16



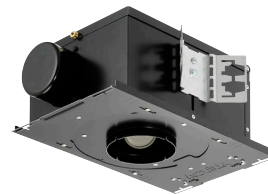
**TC943N, 4302N TRIM**

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

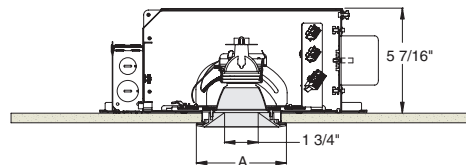
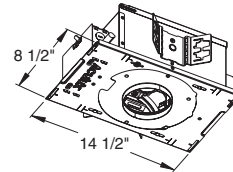
Fixture Type: \_\_\_\_\_

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

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



**DIMENSIONS**



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

	A
Trim Ring	4 5/8"
Flush Mount	3 7/8"

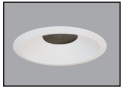
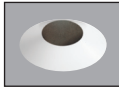
# RECESSED DOWNLIGHT

1-3/4" LENSED REGRESSED PINHOLE APERTURE

Non-IC Rated, 75W MR16

**TC943N, 4302N TRIM**

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

Example: <b>TC943N-V</b>			Example: <b>4302N-WH</b>		
Housing	Transformer	Options	Trim/Description		
<b>TC943N</b>	<b>Blank</b> 120V Magnetic <b>V</b> 277V Magnetic <b>E1</b> 120V Electronic <b>E2</b> 277V Electronic	<b>CP</b> Chicago Plenum			
			Trim Ring	Flush Mount <sup>1</sup>	Description
			<b>4302N-WH</b> <b>4302N-BL</b>	<b>4302N-WH-FM</b> <b>4302N-BL-FM</b>	White Trim 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>FMA4</b>	Drywall Ceiling Adapter
<b>FMA4-SC087-WH</b>	Wood, Stone, Tile, 1/2"-7/8" Thick Ceiling, Adapter, White
<b>FMA4-SC087-BL</b>	Wood, Stone, Tile, 1/2"-7/8" Thick Ceiling, Adapter, Black
<b>FMA4-SC125-WH</b>	Wood, Stone, Tile, 7/8"-1 1/4" Thick Ceiling, Adapter, White
<b>FMA4-SC125-BL</b>	Wood, Stone, Tile, 7/8"-1 1/4" Thick Ceiling, Adapter, Black
<b>FMA4-SC163-WH</b>	Wood, Stone, Tile, 1 1/4"-1 5/8" Thick Ceiling, Adapter, White
<b>FMA4-SC163-BL</b>	Wood, Stone, Tile, 1 1/4"-1 5/8" 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>CTA4N-125</b>	1 1/4" Thick Ceiling Adapter
<b>CTA4N-163</b>	1 5/8" Thick Ceiling Adapter
<b>CTA4N-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:** TC943N (4302N-WH)  
**Test Number:** PT11110402  
**Total Luminaire Efficiency:** 52.7%  
**Luminaire Spacing Criteria:** 0.24  
**Luminaire:** 1 3/4" Regressed Pinhole Trim. Stippled Uniformity Lens.  
**Lamps:** One 50MR16/1R/SP10/C, rated at 1200 total lumens.

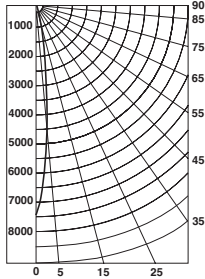
**Initial Footcandles**

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	206.4	101.5	1.3'
7'	151.7	74.6	1.5'
8'	116.1	57.1	1.7'
9'	91.7	45.1	1.9'
10'	74.3	36.5	2.1'
11'	61.4	30.2	2.3'
12'	51.6	25.4	2.5'
13'	44.0	21.6	2.7'
14'	37.9	18.6	3.0'
15'	33.0	16.2	3.2'

**AVERAGE INITIAL FOOTCANDLES**

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	45	42	41
5' x 5'	29	27	26
6' x 6'	20	19	18
7' x 7'	16	15	15
8' x 8'	13	12	12
9' x 9'	10	9	9
10' x 10'	7	7	6
12' x 12'	5	5	5



**Candlepower Distribution (Candelas)**

Angle	Candela	Lumens
0°	7431	
5°	4468	426
15°	521	148
25°	93	43
35°	18	12
45°	5	4
55°	0	0
65°	0	0
75°	0	0
85°	0	0

**Luminance Data**

Ang in Deg	Footlamberts	Candela/M <sup>2</sup>
45	355	1217
55	0	0
65	0	0
75	0	0
85	0	0

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	617	51.4	97.5
0-40°	629	52.4	99.3
0-60°	633	52.7	100.0
0-90°	633	52.7	100.0
90-180°	0	0.0	0.0
0-180°	633	52.7	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	63	63	63	63	61	61	61	61	59	59	59	56	56	56	54	54	54	53
1	61	60	59	59	60	59	58	58	57	56	56	55	55	54	53	53	53	52
2	60	58	57	56	59	57	56	55	56	55	54	54	53	53	53	52	52	51
3	58	56	55	54	57	56	54	53	54	53	52	53	52	52	51	51	50	
4	57	55	53	52	56	54	53	52	53	52	51	52	51	51	52	51	50	49
5	56	54	52	51	55	53	52	50	52	51	50	52	50	50	51	50	49	49
6	55	52	51	50	54	52	51	49	51	50	49	51	50	49	50	49	49	48
7	54	51	50	49	54	51	50	49	51	49	48	50	49	48	50	49	48	47
8	53	51	49	48	53	50	49	48	50	49	48	49	48	47	49	48	47	47
9	52	50	48	47	52	50	48	47	49	48	47	49	48	47	49	47	47	46
10	52	49	48	46	51	49	47	46	49	47	46	48	47	46	48	47	46	46

**PHOTOMETRIC REPORT**

**Catalog Number:** TC943N (4302N-WH)  
**Test Number:** PT11110403  
**Total Luminaire Efficiency:** 59.2%  
**Luminaire Spacing Criteria:** 0.29  
**Luminaire:** 1 3/4" Regressed Pinhole Trim. Stippled Uniformity Lens.  
**Lamps:** One Q71MR16C/NSP15, rated at 1200 total lumens.

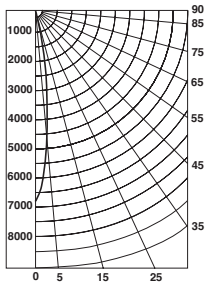
**Initial Footcandles**

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	188.0	91.6	1.6'
7'	138.1	67.3	1.8'
8'	105.7	51.5	2.1'
9'	83.5	40.7	2.4'
10'	67.7	33.0	2.6'
11'	55.9	27.3	2.9'
12'	47.0	22.9	3.2'
13'	40.0	19.5	3.4'
14'	34.5	16.8	3.7'
15'	30.1	14.7	3.9'

**AVERAGE INITIAL FOOTCANDLES**

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

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR3	RCR5
4' x 4'	51	47	45
5' x 5'	33	30	29
6' x 6'	23	21	20
7' x 7'	18	17	16
8' x 8'	15	13	13
9' x 9'	11	10	10
10' x 10'	8	8	7
12' x 12'	6	5	5



**Candlepower Distribution (Candelas)**

Angle	Candela	Lumens
0°	6766	
5°	4794	458
15°	736	209
25°	71	33
35°	13	8
45°	4	3
55°	0	0
65°	0	0
75°	0	0
85°	0	0

**Luminance Data**

Ang in Deg	Footlamberts	Candela/M <sup>2</sup>
45	297	1019
55	0	0
65	0	0
75	0	0
85	0	0

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	699	58.3	98.4
0-40°	707	58.9	99.5
0-60°	711	59.2	100.0
0-90°	711	59.2	100.0
90-180°	0	0.0	0.0
0-180°	711	59.2	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	70	70	70	70	69	69	69	69	66	66	66	63	63	63	60	60	60	59
1	69	68	67	66	67	66	65	65	64	63	63	62	61	61	60	60	59	58
2	67	65	64	63	66	64	63	62	62	61	61	61	60	59	59	59	58	57
3	65	63	62	60	64	62	61	60	61	60	59	60	59	58	59	58	57	56
4	64	62	60	58	63	61	59	58	60	58	57	59	58	57	58	57	56	56
5	63	60	58	57	62	60	58	57	59	57	56	58	57	56	57	56	55	55
6	62	59	57	56	61	58	57	55	58	56	55	57	56	55	56	55	54	54
7	61	58	56	55	60	57	56	54	57	55	54	56	55	54	56	55	54	53
8	60	57	55	54	59	56	55	54	56	54	53	56	54	53	55	54	53	53
9	59	56	54	53	58	56	54	53	55	54	53	55	53	53	54	53	52	52
10	58	55	53	52	58	55	53	52	54	53	52	54	53	52	54	53	52	51

