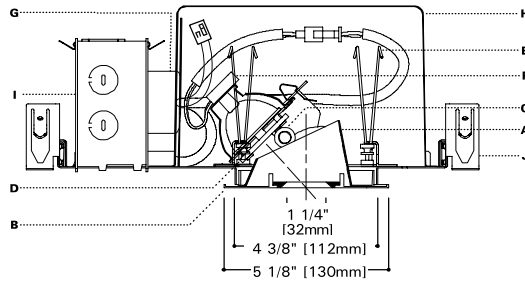


DESCRIPTION

Specification grade 71 watt MR16 pinhole fixture. Adjustment mechanism features hot aiming capabilities, aiming marks and toolless locking. Pinhole minimizes aperture appearance, and reflector provides 50° cutoff to lamp and lamp image. For use with all halogen MR16 lamp varieties. Units small size is ideal for tight construction areas. Insulation must be kept 3" away from sides and top of fixture. **Optical element can be changed after installation to provide a variety of distributions. e.g. into a downlight**



SPECIFICATION FEATURES

A...Reflector

.040 thick aluminum spun parabolic interior reflector in Black Alzak® finish. Die-cast 1.25" occulus with knife edge produces dark aperture. Occulus with either flat black or white finish.

B...Flange

Die-cast flange with matte white, polished or satin aluminum or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

C...Adjustability

Removable lamp adjustment mechanism provides up to 45° tilt and 361° rotation and locks into any aiming position. Unit is relamped without unlocking adjustments. Translating centerbeam optics maximize light output.

D...Lens

Soft focus lens standard in platform for smooth beam patterns. Pinhole element includes a clear lens to allow maximum output if desired. Up to two filter media can be used which are retained during relamping.

E...Attachment

Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange or reflector.

F...Socket

GX5.3 base for Bi-pin MR16 lamps. Back light shield keeps interior of fixture dark.

G...Transformer

Truvolt™ toroidal transformer with dual-output taps for proper 12.0V operation and quiet operation when dimming. Dimmer tap compensates for inherent voltage loss from dimmers, resulting in 30% more lumens than traditional laminated transformers. Toroidal design, with 90% or greater efficiency, features a rolled one-piece continuous core of M3 grade grain oriented silicon steel complete with

an integral thermal to protect against overheating. For dimming, use dimmers rated for electromagnetic transformers. **Transformer is warranted for 5 years and is serviceable from below ceiling.**

Note: If a dimming system is operated for construction lighting in its "shunt" mode, i.e. bypassing the dimmer modules, for an extended period of time, fixtures with the dual-tap toroidal transformer should be operated on the "Switched Fixture" output until the dimmers are in use. Operating fixtures on the "Dimmed Fixture" output with a full 120v input for an extended period will overdrive the lamp and cause shortened lamp life.

H...Frame/Housing

Hot dipped galvanized 20 gauge steel frame with built in 1/2 inch plaster lip. Gunsights allow for consistent alignment. Matte black housing interior.

I...Junction Box

18 cubic inches, listed for 4#12 AWG or 6#14 AWG 90° C additional feed through conductors, has three 1/2 inch pryouts.

J...Bar Hangers

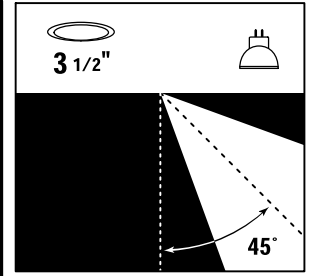
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform. For use in T-bar ceilings order accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

K...Codes

Unit is airtight and exchanges less than 2.0 CFM with the plenum at a pressure of 75 pascals. Insulation must be kept three inches away from fixture sides and none on top as to entrap heat.

L...Labels

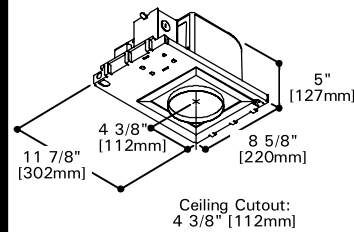
UL and cUL listed, standard damp label, IBEW union made.



PN3MR E3PIN

71 W MR 16

3" ADJUSTABLE PINHOLE



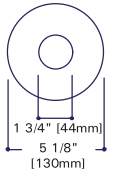
Ceiling Cutout:
4 3/8" [112mm]

PINHOLE ELEMENT VARIETIES (PLAN VIEW)

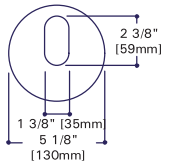
E3PIN
E3PINW
E3PINPOL
E3PINSAL
E3PINRAW



E3PINLARGE
E3PINLARGE RAW
E3PINRD



E3OVAL



ORDERING INFORMATION

Complete unit consists of a platform and element

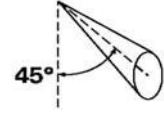
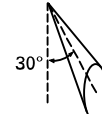
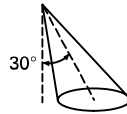
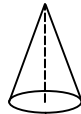
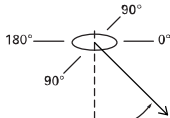
| Platform | Optical Element | Flange | Accessories |
|---|---|--|---|
| <p>PN3MR = 3" Airtight Non-IC Low Voltage Housing</p> <p>PN3MR REMOTE = 3" Airtight Non-IC Housing for Remote Transformer</p> | <p>E3PIN = MR16 1-1/4" 45° Adjustable Pinhole</p> <p>E3PINLARGE = MR16 2" 45° Adjustable Pinhole</p> <p>E3OVAL = Oval Pinhole</p> <p>E3PINRD = Radius Edges</p> | <p>Blank = White die-cast with Black Occulus¹</p> <p>W = White with white occulus¹</p> <p>POL = Polished Aluminum with Black Occulus¹</p> <p>SAL = Satin Aluminum with Black Occulus¹</p> <p>RAW² = Raw Die-cast with black Occulus¹</p> | <p>MBCLP = 40 Push On T Bar Clips (for 10 Units)</p> <p>PLE3 = Plaster Lip Extension for Max 2" Thick Ceiling</p> <p>FMC3 = Flush Mount Collar</p> <p>LSPD = Spread Lens</p> <p>LLNR = Linear Spread Lens</p> <p>LUV = UV Reduction Lens</p> <p>LLPINK = Light Pink lens</p> <p>LLSTRAW = Light Straw lens</p> <p>L27K = 2700K dichroic filter</p> <p>LDAY = Daylight lens</p> <p>LSPINK = Surprise Pink lens</p> <p>LPLAV = Pale Lavender lens</p> <p>LHEX = Hex Cell Louver</p> <p>LSNOOT = SNOOT</p> |

Energy Data

120V Input

| Lamp Watts | Input Watts | Operating Current |
|------------|-------------|-------------------|
| 20 | 23 | .19 |
| 35 | 41 | .34 |
| 37 | 42 | .35 |
| 42 | 47 | .39 |
| 50 | 57 | .48 |
| 65 | 70 | .58 |
| 71 | 77 | .64 |
| 75 | 81 | .68 |

PHOTOMETRICS



| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|---|---|--------------|---|----|-----|-----|--|----|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| OS Q65 MR16Q/10/NSP/B Lumens: 1100 Beam Spread: 10° CBCP: 14,000 | 85° | 0 | 6' | 89 | 1.4 | 1.4 | 6' | 51 | 1.6 | 1.7 | 3.5 | 2' | 99 | 1.3 | 0.8 | 3.5 | 2' | 209 | 0.6 | 0.7 | 2 |
| | 75° | 0 | 8' | 50 | 1.9 | 1.9 | 8' | 28 | 2.1 | 2.3 | 4.6 | 3' | 44 | 1.9 | 1.3 | 5.2 | 3' | 93 | 1 | 1 | 3 |
| | 65° | 0 | 10' | 32 | 2.4 | 2.4 | 10' | 18 | 2.6 | 2.9 | 5.8 | 4' | 25 | 2.5 | 1.7 | 6.9 | 4' | 52 | 1.3 | 1.3 | 4 |
| | 55° | 0 | 12'6" | 20 | 3.0 | 3.0 | 12'6" | 12 | 3.3 | 3.6 | 7.2 | 5' | 16 | 3.2 | 2.1 | 8.7 | 5' | 33 | 1.6 | 1.7 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21270 | | | | Test # H21275 | | | | | Test # H21275 | | | | | Test # H21276 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|---|---|--------------|---|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| GE Q50 MR16/C/NSP15 Lumens: 750 Beam Spread: 15° CBCP: 9,500 | 85° | 0 | 6' | 154 | 1.3 | 1.3 | 6' | 82 | 1.7 | 1.7 | 3.5 | 2' | 171 | 1.4 | 0.9 | 3.5 | 2' | 345 | 0.8 | 0.7 | 2 |
| | 75° | 0 | 8' | 87 | 1.8 | 1.8 | 8' | 46 | 2.3 | 2.3 | 4.6 | 3' | 76 | 2.1 | 1.4 | 5.2 | 3' | 153 | 1.2 | 1 | 3 |
| | 65° | 0 | 10' | 56 | 2.2 | 2.2 | 10' | 30 | 2.8 | 2.8 | 5.8 | 4' | 43 | 2.8 | 1.8 | 6.9 | 4' | 86 | 1.6 | 1.3 | 4 |
| | 55° | 0 | 12'6" | 36 | 2.8 | 2.8 | 12'6" | 19 | 3.5 | 3.5 | 7.2 | 5' | 27 | 3.5 | 2.3 | 8.7 | 5' | 55 | 2 | 1.7 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21242 | | | | Test # H21247 | | | | | Test # H21247 | | | | | Test # H21248 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|--|---|--------------|---|----|-----|-----|--|-----|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| OS Q65 MR16Q/FL40 Lumens: 1100 Beam Spread: 40° CBCP: 2,100 | 85° | 0 | 6' | 51 | 2.4 | 3.0 | 6' | 31 | 3.1 | 3.0 | 3.5 | 2' | 65 | 2.1 | 1.5 | 3.5 | 2' | 128 | 1.3 | 1.2 | 2 |
| | 75° | 0 | 8' | 29 | 3.2 | 4.0 | 8' | 18 | 4.2 | 4.0 | 4.6 | 3' | 29 | 3.1 | 2.3 | 5.2 | 3' | 57 | 2 | 1.8 | 3 |
| | 65° | 0 | 10' | 18 | 4.0 | 5.0 | 10' | 11 | 5.2 | 5.0 | 5.8 | 4' | 16 | 4.1 | 3.1 | 6.9 | 4' | 32 | 2.7 | 2.4 | 4 |
| | 55° | 0 | 12'6" | 12 | 5.0 | 6.3 | 12'6" | 7.0 | 6.5 | 6.2 | 7.2 | 5' | 10 | 5.2 | 3.8 | 8.7 | 5' | 21 | 3.3 | 3.0 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21262 | | | | Test # H21266 | | | | | Test # H21266 | | | | | Test # H21267 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|---|---|--------------|---|----|-----|-----|--|-----|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| GE Q50 MR16/C/NFL25 Lumens: 884 Beam Spread: 25° CBCP: 3,000 | 85° | 0 | 6' | 73 | 1.8 | 2.4 | 6' | 38 | 2.6 | 2.3 | 3.5 | 2' | 78 | 2.1 | 1.3 | 3.5 | 2' | 148 | 1.1 | 1 | 2 |
| | 75° | 0 | 8' | 41 | 2.4 | 3.2 | 8' | 22 | 3.4 | 3.1 | 4.6 | 3' | 35 | 3.2 | 1.9 | 5.2 | 3' | 66 | 1.7 | 1.5 | 3 |
| | 65° | 0 | 10' | 26 | 3.0 | 4.0 | 10' | 14 | 4.3 | 6.0 | 5.8 | 4' | 20 | 4.3 | 2.5 | 6.9 | 4' | 37 | 2.3 | 1.9 | 4 |
| | 55° | 0 | 12'6" | 17 | 3.8 | 5.0 | 12'6" | 9.0 | 5.4 | 4.9 | 7.2 | 5' | 13 | 5.3 | 3.2 | 8.7 | 5' | 24 | 2.8 | 2.4 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21188 | | | | Test # H21197 | | | | | Test # H21197 | | | | | Test # H21196 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|--|---|--------------|---|----|-----|-----|--|----|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| GE Q50 MR16/C/FL40 Lumens: 800 Beam Spread: 40° CBCP: 1,700 | 85° | 0 | 6' | 38 | 3.2 | 2.5 | 6' | 22 | 3.1 | 3.0 | 3.5 | 2' | 75 | 2.0 | 1.4 | 3.5 | 2' | 101 | 1.6 | 1.3 | 2 |
| | 75° | 0 | 8' | 21 | 4.2 | 3.4 | 8' | 13 | 4.1 | 4.0 | 4.6 | 3' | 33 | 3.0 | 2.1 | 5.2 | 3' | 45 | 2.4 | 1.9 | 3 |
| | 65° | 0 | 10' | 14 | 5.3 | 4.2 | 10' | 8 | 5.2 | 5.1 | 5.8 | 4' | 19 | 4.1 | 2.8 | 6.9 | 4' | 25 | 3.2 | 2.6 | 4 |
| | 55° | 0 | 12'6" | 9 | 6.6 | 5.3 | 12'6" | 5 | 6.5 | 6.3 | 7.2 | 5' | 12 | 5.1 | 3.5 | 8.7 | 5' | 16 | 4 | 3.2 | 5 |
| | 45° | 0 | 1997 | | | | | | | | | | | | | | | | | | |
| | | | Test # H21206 | | | | Test # H21205 | | | | | Test # H21205 | | | | | Test # H21204 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|---|---|--------------|---|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| Q45 MR16/IRC/SP8 Lumens: 1030 Beam Spread: 8° CBCP: 16,000 | 85° | 0 | 6' | 171 | 1.0 | 1.0 | 6' | 79 | 1.5 | 1.5 | 3.5 | 2' | 159 | 1.3 | 0.8 | 3.5 | 2' | 324 | 0.7 | 0.6 | 2 |
| | 75° | 0 | 8' | 96 | 1.4 | 1.4 | 8' | 45 | 2.1 | 2.0 | 4.6 | 3' | 70 | 2.0 | 1.2 | 5.2 | 3' | 144 | 1.1 | 1.0 | 3 |
| | 65° | 0 | 10' | 62 | 1.7 | 1.7 | 10' | 29 | 2.6 | 2.5 | 5.8 | 4' | 40 | 2.6 | 1.6 | 6.9 | 4' | 81 | 1.4 | 1.3 | 4 |
| | 55° | 0 | 12'6" | 39 | 2.3 | 2.3 | 12'6" | 18 | 3.2 | 3.1 | 7.2 | 5' | 25 | 3.3 | 2.0 | 8.7 | 5' | 52 | 1.8 | 1.6 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21224 | | | | Test # H21225 | | | | | Test # H21225 | | | | | Test # H21226 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|---|---|--------------|---|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| GE Q42 MR16/C/VNSP9 Lumens: 575 Beam Spread: 9° CBCP: 12,500 | 85° | 0 | 6' | 123 | 0.8 | 1.2 | 6' | 64 | 1.3 | 1.3 | 3.5 | 2' | 121 | 1.1 | 0.8 | 3.5 | 2' | 246 | 0.6 | 0.6 | 2 |
| | 75° | 0 | 8' | 69 | 1.0 | 1.6 | 8' | 36 | 1.7 | 1.7 | 4.6 | 3' | 54 | 1.6 | 1.1 | 5.2 | 3' | 109 | 0.9 | 0.9 | 3 |
| | 65° | 0 | 10' | 44 | 1.3 | 2.0 | 10' | 23 | 2.1 | 2.1 | 5.8 | 4' | 30 | 2.2 | 1.5 | 6.9 | 4' | 61 | 1.2 | 1.2 | 4 |
| | 55° | 0 | 12'6" | 28 | 1.6 | 2.5 | 12'6" | 15 | 2.6 | 2.7 | 7.2 | 5' | 19 | 2.7 | 1.9 | 8.7 | 5' | 39 | 1.5 | 1.5 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21207 | | | | Test # H21208 | | | | | Test # H21208 | | | | | Test # H21209 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|--|---|--------------|---|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| OS Q37 MR16/IR/SP10 Lumens: 900 Beam Spread: 10° CBCP: 13,100 | 85° | 0 | 6' | 151 | 1.3 | 1.8 | 6' | 87 | 1.8 | 1.6 | 3.5 | 2' | 147 | 1.6 | 0.9 | 3.5 | 2' | 329 | 1.0 | 0.7 | 2 |
| | 75° | 0 | 8' | 85 | 1.8 | 2.4 | 8' | 49 | 2.4 | 2.2 | 4.6 | 3' | 65 | 2.4 | 1.3 | 5.2 | 3' | 146 | 1.4 | 1.0 | 3 |
| | 65° | 0 | 10' | 54 | 2.2 | 3.0 | 10' | 31 | 3 | 2.7 | 5.8 | 4' | 37 | 3.1 | 1.8 | 6.9 | 4' | 82 | 1.9 | 1.3 | 4 |
| | 55° | 0 | 12'6" | 35 | 2.8 | 3.8 | 12'6" | 20 | 3.8 | 3.4 | 7.2 | 5' | 24 | 3.9 | 2.2 | 8.7 | 5' | 53 | 2.4 | 1.7 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21258 | | | | Test # H21257 | | | | | Test # H21257 | | | | | Test # H21256 | | | | |

| Lamp | Luminance cd/m ² @ Maximum Tilt | | 0° Aiming Angle Horizontal Footcandles | | | | 30° Aiming Angle Horizontal Footcandles | | | | | 30° Aiming Angle Vertical Footcandles | | | | | 45° Aiming Angle Vertical Footcandles | | | | |
|--|---|--------------|---|----|-----|-----|--|----|-----|-----|-----|--|----|-----|-----|-----|--|-----|-----|-----|----|
| | Degree | @ 180° @ 90° | D | FC | L | W | D | FC | L | W | CB | D | FC | L | W | CB | D | FC | L | W | CB |
| GE Q20 MR16/VNSP7 Lumens: 200 Beam Spread: 7° CBCP: 7,400 | 85° | 0 | 6' | 87 | 0.7 | 0.6 | 6' | 38 | 0.8 | 0.9 | 3.5 | 2' | 79 | 0.7 | 0.6 | 3.5 | 2' | 172 | 0.4 | 0.4 | 2 |
| | 75° | 0 | 8' | 49 | 0.9 | 0.8 | 8' | 22 | 1.1 | 1.2 | 4.6 | 3' | 35 | 1.1 | 0.8 | 5.2 | 3' | 76 | 0.6 | 0.6 | 3 |
| | 65° | 0 | 10' | 31 | 1.1 | 1.0 | 10' | 14 | 1.4 | 1.5 | 5.8 | 4' | 20 | 1.5 | 1.1 | 6.9 | 4' | 43 | 0.8 | 0.7 | 4 |
| | 55° | 0 | 12'6" | 20 | 1.4 | 1.3 | 12'6" | 9 | 1.7 | 1.8 | 7.2 | 5' | 13 | 1.8 | 1.4 | 8.7 | 5' | 28 | 1.0 | 0.9 | 5 |
| | 45° | 0 | | | | | | | | | | | | | | | | | | | |
| | | | Test # H21233 | | | | Test # H21236</ | | | | | | | | | | | | | | |