

## DESCRIPTION

Specification grade 71 watt MR16 Super Adjustable fixture. Adjustment mechanism features 15° to 75° hot aiming capabilities, and locking from below ceiling. Clean shape minimizes appearance, while baffle eliminates aperture brightness. Design reduces stray light on ceiling. 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...Optical Element

Die-cast body and flange with matte white finish. Also available in flat black or raw finish. For all finishes, black baffles with regressed edge produces dark aperture.

## B...Optics

Wide aperture maximizes beam spread of lamp. 94% specular clear glass mirror allows true color, and maximizes reflection of lamp for greatest possible light impact. Optics reduce stray light and hot spots on ceiling plane.

## C...Adjustability

Lamp locks in 361° rotation, 15° to 75° tilt. Unit is relamped without unlocking adjustments. Adjustment mechanism can be removed through the aperture for maintenance from below.

## D...Lens

Soft focus lens standard for smooth beam patterns. Up to two filter media can be used which are retained during relamping. Hex cell louver provided for use with extreme aiming angles on 12/12 pitch ceilings for optimal brightness control.

## E...Attachment

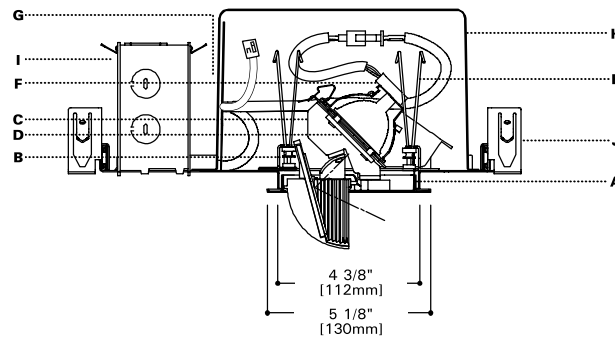
Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange. Elements are keyed for proper relamping

## 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 dimmed. 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,



cy, 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

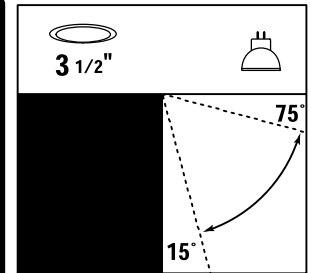
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. shipped with platform. For use in T-bar ceilings order accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

## 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.

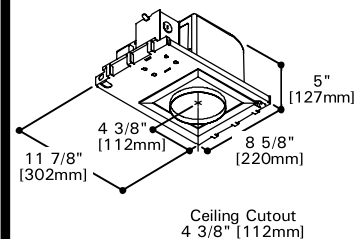
## L...Labels

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



**PN3MR  
E3SA**

**71 W MR16  
3" SUPER  
ADJUSTABLE**



Ceiling Cutout  
4 3/8" [112mm]

## 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

## ORDERING INFORMATION

Complete unit consists of a platform and element

Platform	Optical Element	Finish	Accessories
<b>PN3MR</b>			
PN3MR = 3" Airtight Non-IC Low Voltage Housing PN3MR REMOTE = 3" Airtight Non IC Housing for Remote Transformer	E3SA = 3" MR16 Super Adjustable 15° - 75°	Blank = White Die-Cast B = Black Die- Cast RAW = Natural Die- Cast	MBCLP = 40 Push On T Bar Clips (for 10 Units) PLE3 = Plaster Lip Extension for Max 2" Thick Ceiling FMC3 = Flush Mount Collar LSPD = Spread Lens LLNR = Linear Spread Lens LUV = UV Reduction Lens LLPINK = Light Pink LLSTRAW = Light Straw lens L27K = 2700K dichroic filter LDAY = Daylight lens LSPINK = Surprise Pink lens LPLAV = Pale Lavender lens LHEX = Hex Cell Louver

COOPER LIGHTING

For additional options  
please consult factory.

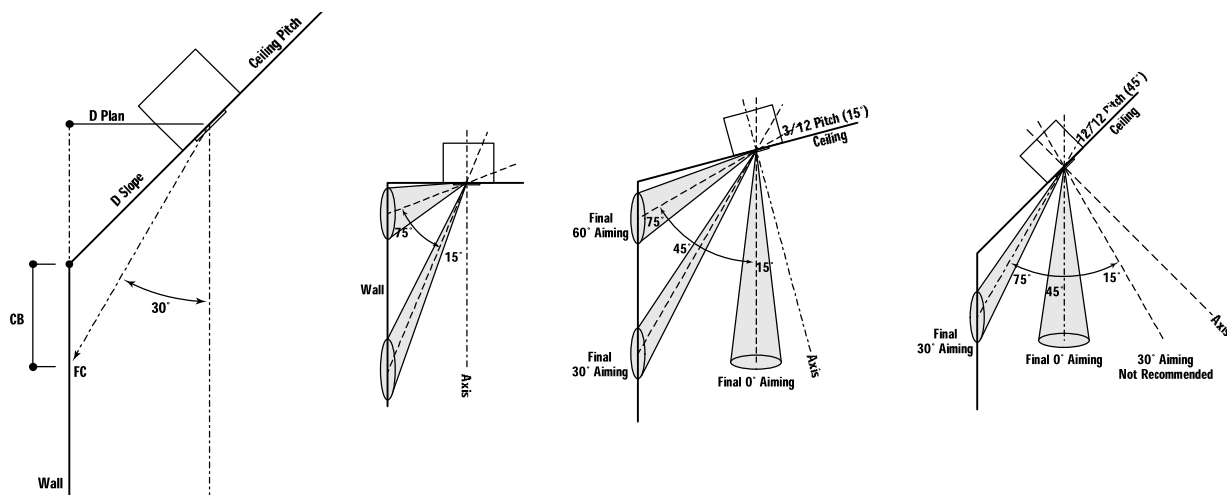
ADI042561

## PHOTOMETRICS

<b>Pitch:</b>		<b>12/12</b>				<b>12/12</b>				<b>12/12</b>				<b>12/12</b>			
<b>Fixture:</b>		<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>			
<b>Tilt of Element:</b>		<b>75°</b>				<b>75°</b>				<b>75°</b>				<b>75°</b>			
<b>Lamp:</b>		<b>OS 37MR16/IR/SP10</b>				<b>GE Q42MR16/VNSP</b>				<b>OS 50MR16/IR/SP/10</b>				<b>OS 65MR16Q/10/NSP</b>			
<b>Beam Spread:</b>		<b>10° x 10°</b>				<b>9° x 9°</b>				<b>10° x 10°</b>				<b>10° x 10°</b>			
<b>Published CBCP:</b>		<b>13,100</b>				<b>12,500</b>				<b>15,700</b>				<b>14,000</b>			
<b>D Plan</b>	<b>D Slope</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>
2'0"	2'9"	179	1'9"	1'0"	1'6"	129	1'3"	0.9	1'6"	199	1'6"	9"	1'6"	196	1'6"	1'0"	1'6"
2'6"	3'6"	114	2'0"	1'3"	2'0"	83	1'6"	1'0"	2'0"	127	2'0"	1'3"	2'0"	126	2'0"	1'3"	2'0"
3'0"	4'3"	79	2'6"	1'6"	2'3"	57	1'9"	1'3"	2'3"	86	2'3"	1'6"	2'3"	87	2'3"	1'6"	2'3"
4'0"	5'6"	45	3'3"	1'9"	3'0"	32	2'6"	1'6"	3'0"	50	3'0"	1'9"	3'0"	49	2'9"	2'0"	3'0"

<b>Pitch:</b>		<b>9/12</b>				<b>9/12</b>				<b>9/12</b>				<b>9/12</b>			
<b>Fixture:</b>		<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>			
<b>Tilt of Element:</b>		<b>37°</b>				<b>37°</b>				<b>37°</b>				<b>37°</b>			
<b>Lamp:</b>		<b>OS 37MR16/IR/SP10</b>				<b>GE Q42MR16/VNSP</b>				<b>OS 50MR16/IR/SP/10</b>				<b>OS 65MR16Q/10/NSP</b>			
<b>Beam Spread:</b>		<b>10° x 10°</b>				<b>9° x 9°</b>				<b>10° x 10°</b>				<b>10° x 10°</b>			
<b>Published CBCP:</b>		<b>13,100</b>				<b>12,500</b>				<b>15,700</b>				<b>14,000</b>			
<b>D Plan</b>	<b>D Slope</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>
2'0"	2'6"	193	1'9"	1'0"	2'	152	1'3"	9"	2'	240	1'6"	1'0"	2'	263	1'3"	9"	2'0"
2'6"	3'0"	123	2'0"	1'3"	2'6"	97	1'6"	1'0"	2'6"	154	2'0"	1'3"	2'6"	168	1'9"	1'0"	2'6"
3'0"	3'9"	86	2'6"	1'6"	3'0"	68	2'0"	1'3"	3'0"	107	2'3"	1'6"	3'0"	117	2'0"	1'3"	3'0"
4'0"	5'0"	48	3'3"	1'9"	4'0"	38	2'6"	1'6"	4'0"	60	3'0"	2'0"	4'0"	65	2'9"	1'9"	4'0"

<b>Pitch:</b>		<b>6/12</b>				<b>6/12</b>				<b>6/12</b>				<b>6/12</b>			
<b>Fixture:</b>		<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>				<b>PN3MR-E3SA</b>			
<b>Tilt of Element:</b>		<b>27°</b>				<b>27°</b>				<b>27°</b>				<b>27°</b>			
<b>Lamp:</b>		<b>OS 37MR16/IR/SP10</b>				<b>GE Q42MR16/VNSP</b>				<b>OS 50MR16/IR/SP/10</b>				<b>OS 65MR16Q/10/NSP</b>			
<b>Beam Spread:</b>		<b>10° x 10°</b>				<b>9° x 9°</b>				<b>10° x 10°</b>				<b>10° x 10°</b>			
<b>Published CBCP:</b>		<b>13,100</b>				<b>12,500</b>				<b>15,700</b>				<b>14,000</b>			
<b>D Plan</b>	<b>D Slope</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>	<b>FC</b>	<b>L</b>	<b>W</b>	<b>CB</b>
2'0"	2'3"	227	1'6"	9"	2'6"	147	1'3"	9"	2'6"	284	1'5"	1'0"	2'6"	312	1'3"	9"	2'6"
2'6"	2'9"	145	2'0"	1'0"	3'0"	94	1'6"	1'0"	3'0"	182	2'0"	1'3"	3'0"	200	1'9"	1'0"	3'0"
3'0"	3'4"	101	2'3"	1'3"	3'9"	66	2'0"	1'3"	3'9"	126	2'3"	1'6"	3'9"	139	2'0"	1'3"	3'9"
4'0"	4'5"	57	3'0"	1'9"	5'0"	37	2'6"	1'6"	5'0"	71	3'0"	2'0"	5'0"	78	2'9"	1'9"	5'0"



## Notes &amp; Definitions:

The following diagrams represent the aiming of the unit for an effective 30° tilt angle from nadir in ceilings of different pitches; e.g. 75° - 12/12 pitch (or 45°) = 30°.

For optimal performance, it is recommended that fixture is used for illuminating vertical surfaces.

The E3SA "Super Adjustable" element is capable of tilting the lamp's center beam from 15° to 75°; 361° in rotation. The spread of the lamp's beam will fill higher than 75° at maximum tilt.

The E3SA includes an LHEX louver for maximum control of glare if used where mirror is in view.

D Plan = Distance in plan view from wall.

D Slope = Distance as actually measured along slope of ceiling from corner.

FC = Maximum footcandles on wall within effective visual beam. (EVW = 50% of max. FC)

L = Length of effective visual beam

W = Width of effective visual beam

CB = Distance down wall from corner to center of beam location.

IRIS believes that bare lamp data photometrics vastly overstate the performance of low voltage adjustable accent fixtures.

The "real world photometrics" shown here are from off the shelf lamps in fixtures using a clear lens and operated at 12.0 volts. Please see page 64 & 65 of the IRIS catalog for a further discussion and appropriate correction multipliers.

Note: Specifications and Dimensions subject to change without notice.

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