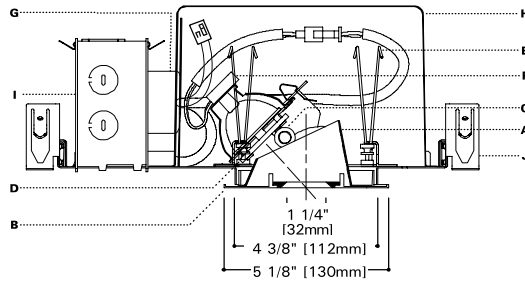


DESCRIPTION

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

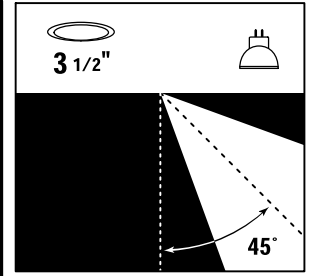
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform. For use in T-bar ceilings order accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

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

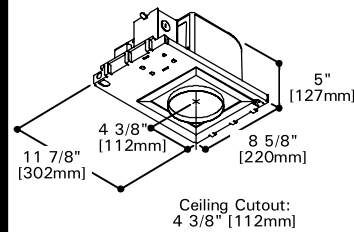
UL and cUL listed, standard damp label, IBEW union made.



PN3MR E3PIN

71 W MR 16

3" ADJUSTABLE PINHOLE



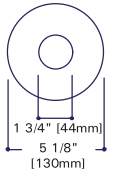
Ceiling Cutout:
4 3/8" [112mm]

PINHOLE ELEMENT VARIETIES (PLAN VIEW)

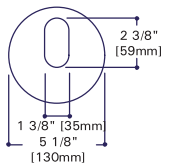
E3PIN
E3PINW
E3PINPOL
E3PINSAL
E3PINRAW



E3PINLARGE
E3PINLARGE RAW
E3PINRD



E30VAL



ORDERING INFORMATION

Complete unit consists of a platform and element

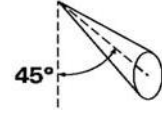
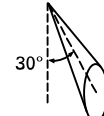
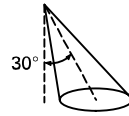
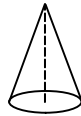
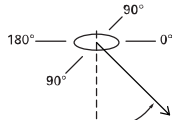
Platform	Optical Element	Flange	Accessories
PN3MR = 3" Airtight Non-IC Low Voltage Housing PN3MR REMOTE = 3" Airtight Non-IC Housing for Remote Transformer	E3PIN = MR16 1-1/4" 45° Adjustable Pinhole E3PINLARGE = MR16 2" 45° Adjustable Pinhole E30VAL = Oval Pinhole E3PINRD = Radius Edges	Blank = White die-cast with Black Occulus ¹ W = White with white occulus ¹ POL = Polished Aluminum with Black Occulus ¹ SAL = Satin Aluminum with Black Occulus ¹ RAW ² = Raw Die-cast with black Occulus ¹	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 lens LLSTRAW = Light Straw lens L27K = 2700K dichroic filter LDAY = Daylight lens LSPINK = Surprise Pink lens LPLAV = Pale Lavender lens LHEX = Hex Cell Louver LSNOOT = SNOOT

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

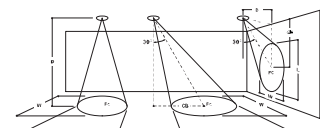
PHOTOMETRICS



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	85° 0 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
Beam Spread: 10°	75° 0 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
CBCP: 14,000	65° 0 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 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 0	Test # H21270	Test # H21275	Test # H21275	Test # H21276
GE Q50 MR16/C/NSP15					
Lumens: 750	85° 0 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
Beam Spread: 15°	75° 0 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
CBCP: 9,500	65° 0 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 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 0	Test # H21242	Test # H21247	Test # H21247	Test # H21248
		Test # H21248			
OS Q65 MR16Q/FL40					
Lumens: 1100	85° 0 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
Beam Spread: 40°	75° 0 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
CBCP: 2,100	65° 0 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 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 0	Test # H21262	Test # H21266	Test # H21266	Test # H21267
		Test # H21267			
GE Q50 MR16/C/NFL25					
Lumens: 884	85° 0 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
Beam Spread: 25°	75° 0 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
CBCP: 3,000	65° 0 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 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 0	Test # H21188	Test # H21197	Test # H21197	Test # H21196
		Test # H21196			
GE Q50 MR16/C/FL40					
Lumens: 800	85° 0 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
Beam Spread: 40°	75° 0 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
CBCP: 1,700	65° 0 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 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
		Test # H21204			
Q45 MR16/IRC/SP8					
Lumens: 1030	85° 0 15719	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
Beam Spread: 8°	75° 0 5293	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
CBCP: 16,000	65° 0 3242	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 2389	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 0	Test # H21224	Test # H21225	Test # H21225	Test # H21226
		Test # H21226			
GE Q42 MR16/C/VNSP9					
Lumens: 575	85° 0 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
Beam Spread: 9°	75° 0 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
CBCP: 12,500	65° 0 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 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 0	Test # H21207	Test # H21208	Test # H21208	Test # H21209
		Test # H21209			
OS Q37 MR16/IR/SP10					
Lumens: 900	85° 0 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
Beam Spread: 10°	75° 0 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
CBCP: 13,100	65° 0 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 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 0	Test # H21258	Test # H21257	Test # H21257	Test # H21256
		Test # H21256			
GE Q20 MR16/VNSP7					
Lumens: 200	85° 0 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
Beam Spread: 7°	75° 0 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
CBCP: 7,400	65° 0 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 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 0	Test # H21233	Test # H21236	Test # H21236	Test # H21239
		Test # H21239			

Notes and Definitions:

Luminance: To convert cd/m² to footlamberts, multiply by 0.2919 • Beam spread is to 50% center beam candlepower (CBCP.)
 D = Distance to floor or wall. FC = Footcandles on floor or wall at center beam aiming location. L = Effective Visual Beam length in feet (50% of maximum footcandle level.) W = Effective Visual Beam width in feet (50% of maximum footcandle level. CB = Distance across or down to center beam location. **RIS 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 120 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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