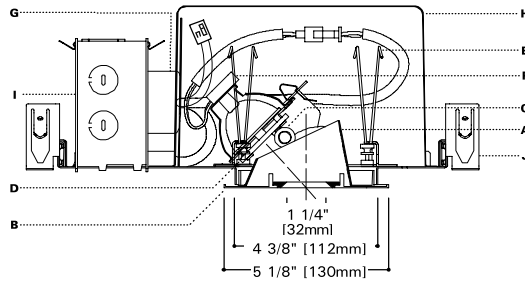


## DESCRIPTION

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" occlusus 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

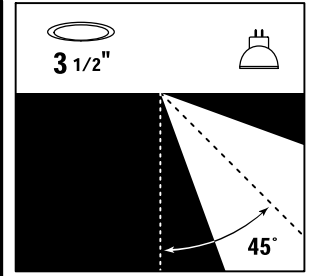
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform. For use in T-bar ceilings order accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

### 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

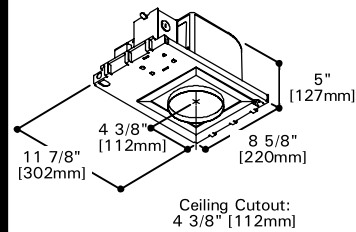
UL and cUL listed, standard damp label, IBEW union made.



## PN3MR E3PIN

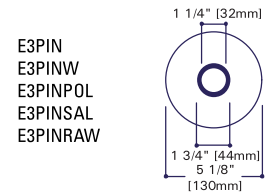
71 W MR 16

3" ADJUSTABLE PINHOLE

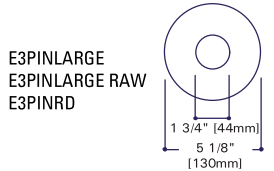


Ceiling Cutout:  
4 3/8" [112mm]

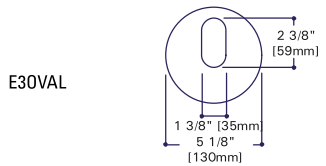
## PINHOLE ELEMENT VARIETIES (PLAN VIEW)



E3PIN  
E3PINW  
E3PINPOL  
E3PINSAL  
E3PINRAW



E3PINLARGE  
E3PINLARGE RAW  
E3PINRD



E3OVAL

## ORDERING INFORMATION

Complete unit consists of a platform and element

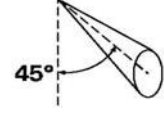
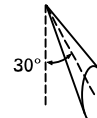
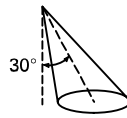
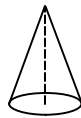
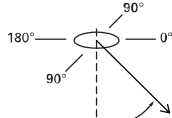
Platform	Optical Element	Flange	Accessories
<p>PN3MR = 3" Airtight Non-IC Low Voltage Housing</p> <p>PN3MR REMOTE = 3" Airtight Non-IC Housing for Remote Transformer</p>	<p>E3PIN = MR16 1-1/4" 45° Adjustable Pinhole</p> <p>E3PINLARGE = MR16 2" 45° Adjustable Pinhole</p> <p>E3OVAL = Oval Pinhole</p> <p>E3PINRD = Radius Edges</p>	<p>Blank = White die-cast with Black Occulus<sup>1</sup></p> <p>W = White with white occulus<sup>1</sup></p> <p>POL = Polished Aluminum with Black Occulus<sup>1</sup></p> <p>SAL = Satin Aluminum with Black Occulus<sup>1</sup></p> <p>RAW<sup>2</sup> = Raw Die-cast with black Occulus<sup>1</sup></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>LNNR = 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 <sup>2</sup> @ 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
<b>OS Q65 MR16Q/10/NSP/B</b>																					
Lumens: 1100																					
Beam Spread: 10°																					
CBCP: 14,000																					
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
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
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				
<b>GE Q50 MR16/C/NSP15</b>																					
Lumens: 750																					
Beam Spread: 15°																					
CBCP: 9,500																					
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
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
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																					
<b>OS Q65 MR16Q/FL40</b>																					
Lumens: 1100																					
Beam Spread: 40°																					
CBCP: 2,100																					
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
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
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																					
<b>GE Q50 MR16/C/NFL25</b>																					
Lumens: 884																					
Beam Spread: 25°																					
CBCP: 3,000																					
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
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
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																					
<b>GE Q50 MR16/C/FL40</b>																					
Lumens: 800																					
Beam Spread: 40°																					
CBCP: 1,700																					
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
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
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																					
<b>Q45 MR16/IRC/SP8</b>																					
Lumens: 1030																					
Beam Spread: 8°																					
CBCP: 16,000																					
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
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
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																					
<b>GE Q42 MR16/C/VNSP9</b>																					
Lumens: 575																					
Beam Spread: 9°																					
CBCP: 12,500																					
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
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
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																					
<b>OS Q37 MR16/IR/SP10</b>																					
Lumens: 900																					
Beam Spread: 10°																					
CBCP: 13,100																					
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
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
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																					
<b>GE Q20 MR16/VNSP7</b>																					
Lumens: 200																					
Beam Spread: 7°																					
CBCP: 7,400																					
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
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
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																					

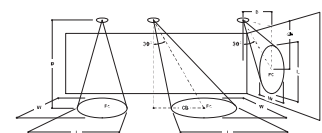
Notes and Definitions:

Luminance: To convert cd/m<sup>2</sup> 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.

Visit our web site at [www.cooperlighting.com](http://www.cooperlighting.com)

