

## DESCRIPTION

Specification grade 71 watt MR16 adjustable fixture. Adjustment mechanism features hot aiming capability, aiming marks and toolless locking. Optics provide glare-free 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

Catalog #	Type
Project	
Comments	Date
Prepared by	

## SPECIFICATION FEATURES

### Reflector

Slot cut cone minimizes view to interior. 0.040 thick aluminum spun parabolic interior reflector in Clear, Gold, Haze, Warm Haze, Black Alzak® finish, painted gloss white or matte white. Other options available upon request. E3AA20 recommended for ceilings over 7/8" thick.

### Flange

Self flange reflector or die-cast flange with either matte white or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

### 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.

### Lens

Soft focus lens standard in platform for smooth beam patterns. Up to two filter media can be used which are retained during relamping.

### Attachment

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

### Socket

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

### Transformer

Truvolt® toroidal transformer with dual-output taps for proper 12.0V operation. 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 and ensure quiet operation. 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.

### 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.

### 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.

### Bar Hangers

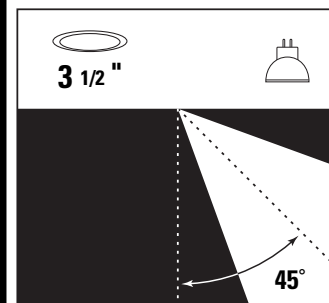
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform. For use in T-bar ceilings order accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

### 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.

### Labels

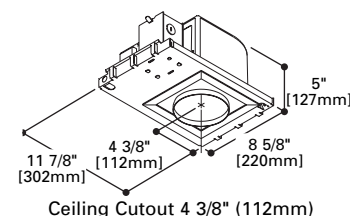
UL/cUL listed, standard damp label, IBEW union made.



**PN3MR**  
**E3AA**  
**E3AA20**  
**E3SLOT**

71W MR16

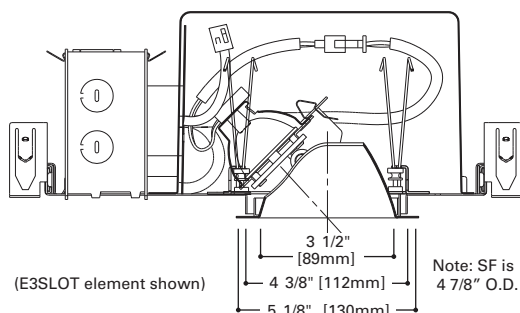
3" ADJUSTABLE  
ACCENT



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



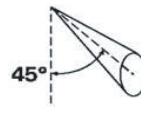
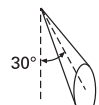
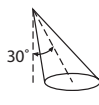
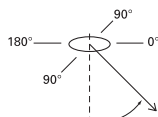
(E3SLOT element shown)

Note: SF is 4 7/8" O.D.

## ORDERING INFORMATION

<b>Platform</b> <b>PN3MR</b> =3" Non-IC Low Voltage Housing <b>PN3MRREMOTE</b> =3" Non-IC Housing for Remote Transformer	<b>Optical Element</b> <b>E3AA</b> =MR16 0 - 45 deg Adjustable Accent <b>E3AA20</b> =MR16 0 - 20 deg Adjustable Accent <b>E3SLOT</b> =MR16 0 - 45 deg Adjustable Accent Slot Cut Reflector	<b>Finish</b> <b>B</b> =Black <b>C</b> =Clear <b>CC</b> =Chocolate <b>CCH</b> =Chocolate Haze <b>G</b> =Gold <b>GP</b> = Graphite <b>GPH</b> = Graphite Haze <b>H</b> = Haze <b>K</b> = Cognac <b>KH</b> = Cognac Haze <b>MW</b> = Matte White <b>W</b> = Gloss White <b>WMH</b> = Warm Haze	<b>Flange</b> <b>Blank</b> =White Die-cast flange ring <b>SF</b> =Self Flange <b>SFWF</b> =Self Flanged, Painted White <b>RAW</b> = Raw Die-cast	<b>Accessories</b> <b>MBCLP</b> =40 Push On T Bar Clip (for 10 Units) <b>LSNOOT</b> =Lamp Snoot for MR16 Lamp <b>Flush Mount</b> <b>FMC3</b> = 3" Flush Mount Collar <b>L Series Filter</b> <b>LLNR</b> = Linear Spread Lens <b>LUV</b> = Ultraviolet Reduction Lens <b>Tinting Colors</b> <b>L27K</b> = 2700 Dichroic Filter <b>LLSTRAW</b> = Light Straw Tint <b>LPLAV</b> = Pale Lavender Tint <b>Plaster Lip</b> <b>PLE3</b> = Plaster Lip Extension for Max 2" Thick Ceiling <b>LHEX</b> =Hex Cell Louver <b>LSPD</b> = Spread Lens <b>LLPINK</b> = Light Pink Tint <b>LDAY</b> = Daylight Tint <b>LSPINK</b> = Surprise Pink Tint

Notes: \* Matte white is recommended for self flanged reflectors.



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>GE Q20 MR16C/VNSP/7</b>																						
Lumens: 200	85°	0	0	6'	145	0.7	0.6	6'	81	1.1	0.8	3.5	2'	174	0.8	0.5	3.5	2'	521	0.4	0.3	2
Beam Spread: 7°	75°	0	0	8'	81	1	0.8	8'	46	1.5	1	4.6	3'	77	1.2	0.8	5.2	3'	231	0.6	0.5	3
CBCP: 7,400	65°	0	0	10'	52	1.2	1	10'	29	1.9	1.3	5.8	4'	43	1.7	1	6.9	4'	130	0.8	0.7	4
	55°	0	0	12'6"	33	1.5	1.3	12'6"	19	2.3	1.6	7.2	5'	28	2.1	1.3	8.7	5'	83	0.9	0.8	5
	45°	922	922																			
	Test # H21238			Test # H21231				Test # H21235					Test # H21235					Test # H21238				
<b>OS Q37 MR16/IR/SP10</b>																						
Lumens: 900	85°	0	0	6'	321	0.9	1.2	6'	181	1.5	1.1	3.5	2'	355	1.3	0.7	3.5	2'	986	0.6	0.5	2
Beam Spread: 10°	75°	0	0	8'	180	1.3	1.6	8'	102	1.9	1.5	4.6	3'	158	1.9	1	5.2	3'	438	1	0.7	3
CBCP: 13,100	65°	0	0	10'	115	1.6	2	10'	65	2.4	1.9	5.8	4'	89	2.5	1.3	6.9	4'	247	1.3	1	4
	55°	284	284	12'6"	74	2	2.5	12'6"	42	3	2.3	7.2	5'	57	3.1	1.7	8.7	5'	158	1.6	1.2	5
	45°	3225	2304																			
	Test # H21250			Test # H21252				Test # H21251					Test # H21251					Test # H21250				
<b>GE Q42MR16C/VNSP/9</b>																						
Lumens: 575	85°	0	0	6'	263	0.7	1.2	6'	144	1.1	1.2	0	2'	287	1	0.7	3.5	2'	806	0.5	0.5	2
Beam Spread: 9°	75°	0	0	8'	148	1	1.6	8'	81	1.5	1.6	0	3'	128	1.5	1	5.2	3'	358	0.8	0.8	3
CBCP: 12,500	65°	0	0	10'	95	1.2	2	10'	52	1.9	2	0	4'	72	2	1.4	6.9	4'	201	1	1.1	4
	55°	0	284	12'6"	61	1.5	2.5	12'6"	33	2.4	2.5	0	5'	46	2.4	1.7	8.7	5'	129	1.3	1.3	5
	45°	922	1382																			
	Test # H21213			Test # H21215				Test # H21214					Test # H21214					Test # H21213				
<b>PH Q45 MRC16/IRC/SP8</b>																						
Lumens: 1030	85°	0	0	6'	343	1	1.2	6'	152	1.5	1.6	3.5	2'	299	1.3	0.9	3.5	2'	859	0.7	0.6	2
Beam Spread: 8°	75°	0	0	8'	193	1.3	1.6	8'	86	2	2.2	4.6	3'	133	2	1.3	5.2	3'	382	1	0.9	3
CBCP: 16,000	65°	0	0	10'	124	1.6	2	10'	55	2.6	2.7	5.8	4'	75	2.6	1.8	6.9	4'	215	1.3	1.2	4
	55°	1136	284	12'6"	79	2	2.5	12'6"	35	3.2	3.4	7.2	5'	48	3.3	2.2	8.7	5'	137	1.7	1.5	5
	45°	3456	2304																			
	Test # H21230			Test # H21222				Test # H21129					Test # H21129					Test # H21230				
<b>GE Q50 MR16C/NSP15</b>																						
Lumens: 750	85°	0	1869	6'	220	1.5	1.8	6'	143	1.7	1.7	3.5	2'	252	1.5	1	3.5	2'	690	0.8	0.7	2
Beam Spread: 15°	75°	629	629	8'	124	2	2.4	8'	80	2.2	2.3	4.6	3'	112	2.3	1.5	5.2	3'	306	1.2	1.1	3
CBCP: 12,500	65°	385	385	10'	79	2.5	3	10'	51	2.8	2.9	5.8	4'	63	3	2	6.9	4'	172	1.6	1.5	4
	55°	568	284	12'6"	51	3.1	3.8	12'6"	33	3.5	3.6	7.2	5'	40	3.8	2.5	8.7	5'	110	2	1.8	5
	45°	3686	1382																			
	Test # H21246			Test # H21241				Test # H21245					Test # H21245					Test # H21246				
<b>GE Q50 MR16C/VNFL25</b>																						
Lumens: 884	85°	0	1847	6'	86	2.4	3	6'	50	3	3.2	3.5	2'	115	2.2	1.7	3.5	2'	269	1.3	1.3	2
Beam Spread: 25°	75°	0	622	8'	48	3.1	4	8'	28	4	4.3	4.6	3'	51	3.3	2.5	5.2	3'	119	1.9	1.9	3
CBCP: 9,500	65°	0	381	10'	31	3.9	5	10'	18	5	5.4	5.8	4'	29	4.5	3.4	6.9	4'	67	2.6	2.5	4
	55°	281	281	12'6"	20	4.9	6.3	12'6"	12	6.2	6.7	7.2	5'	18	5.6	4.2	8.7	5'	43	3.2	3.2	5
	45°	7056	1366																			
	Test # H21195			Test # H21182				Test # H21194					Test # H21194					Test # H21195				
<b>GE Q50 MR16C/FL40</b>																						
Lumens: 800	85°	0	1847	6'	57	2.9	4.2	6'	29	4.3	4.1	3.5	2'	102	1.8	1.7	3.5	2'	169	1.5	1.6	2
Beam Spread: 40°	75°	622	622	8'	32	3.9	4.9	8'	16	5.7	5.5	4.6	3'	45	2.7	2.5	5.2	3'	75	2.3	2.4	3
CBCP: 1,700	65°	381	381	10'	21	4.9	7	10'	11	7.1	6.9	5.8	4'	266	3.6	3.3	6.9	4'	42	3	3.2	4
	55°	842	281	12'6"	13	6.1	8.8	12'6"	7	8.9	8.6	7.2	5'	16	4.5	4.2	8.7	5'	27	3.8	3.9	5
	45°	14345	1822																			
	Test # H21198			Test # H21249				Test # H21199					Test # H21199					Test # H21198				
<b>OS Q65 MR16Q/10/NSP/B</b>																						
Lumens: 1100	85°	0	0	6'	320	1	1.2	6'	122	1.4	1.6	3.5	2'	236	1.2	0.9	3.5	2'	770	0.6	0.5	2
Beam Spread: 10°	75°	0	0	8'	180	1.3	1.6	8'	68	1.9	2.2	4.6	3'	105	1.9	1.3	5.2	3'	342	0.9	0.7	3
CBCP: 14,000	65°	0	385	10'	115	1.6	2	10'	44	2.4	2.7	5.8	4'	59	2.5	1.8	6.9	4'	193	1.2	0.9	4
	55°	568	568	12'6"	74	2	2.5	12'6"	28	2.9	3.4	7.2	5'	38	3.1	2.2	8.7	5'	123	1.5	1.2	5
	45°	8524	3686																			
	Test # H21272			Test # H21268				Test # H21271					Test # H21271					Test # H21272				
<b>OS Q65 MR16Q/40/FL</b>																						
Lumens: 1100	85°	0	1869	6'	66	3.3	4.8	6'	40	4.2	3.9	3.5	2'	110	2.1	1.9	3.5	2'	207	1.5	1.7	2
Beam Spread: 40°	75°	629	629	8'	37	4.4	6.4	8'	23	5.7	5.3	4.6	3'	49	3.2	2.9	5.2	3'	92	2.3	2.5	3
CBCP: 2,100	65°	385	385	10'	24	5.4	8	10'	15	7.1	6.6	5.8	4'	27	4.3	3.8	6.9	4'	52	3.1	3.3	4
	55°	852	568	12'6"	15	6.8	10	12'6"	9	8.8	8.2	7.2	5'	18	5.3	4.8	8.7	5'	33	3.8	4.1	5
	45°	10376	2765																			
	Test # H21261			Test # H21259				Test # H21260					Test # H21160					Test # H21261				

**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.

**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.

